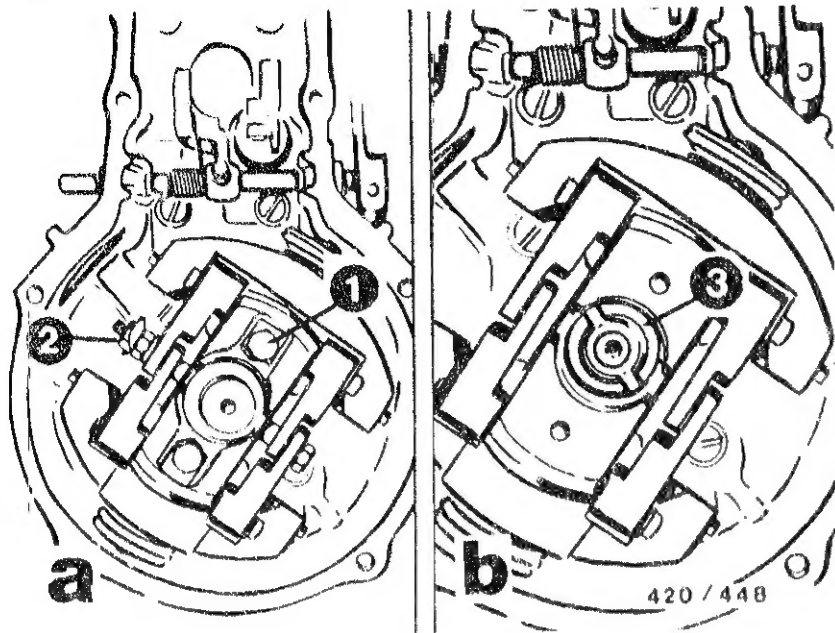


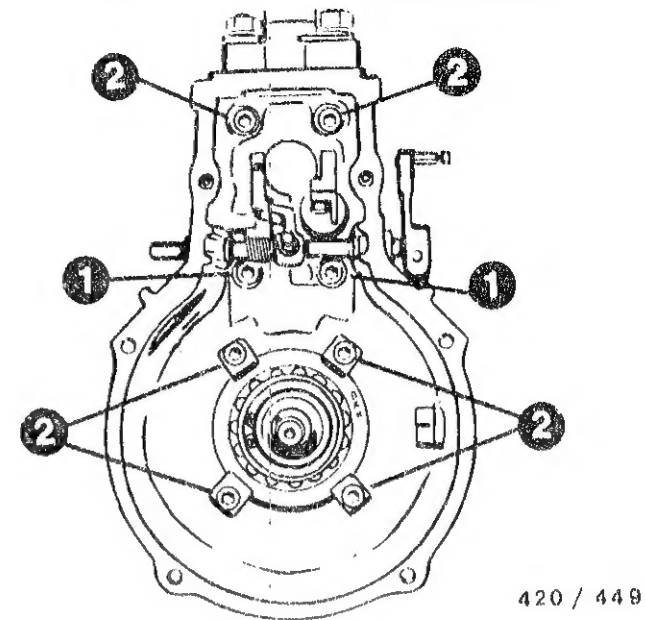
TIGHTENING TORQUES

1 = Fillister-head screw	5...7 Nm
Torx screw	8...10 Nm
2 = Oval-head screw	8...9 Nm
3 = Fillister-head screw	5...7 Nm
Capstan screw	
4 = Control-lever clamping screw	11...13 Nm
5 = Hexagon screw	5...7 Nm
Fillister-head screw	
Capstan screw	
6 = Spring-chamber screw plug	30...40 Nm
7 = Hexagon screw	18...20 Nm

1 = Fillister-head screw	5 - 7 Nm
Capstan screw	
2 = Hexagon nut	6 - 8 Nm
3 = Hexagon screw	18 - 20 Nm



- 1 = Hexagon screw 6 - 8 Nm
- 2 = Hexagon nut 6 - 8 Nm
- 3 = Round nut
- Drive hub with lubr. spiral 50 - 60 Nm
- Drive hub without lubr. spiral 65 - 75 Nm

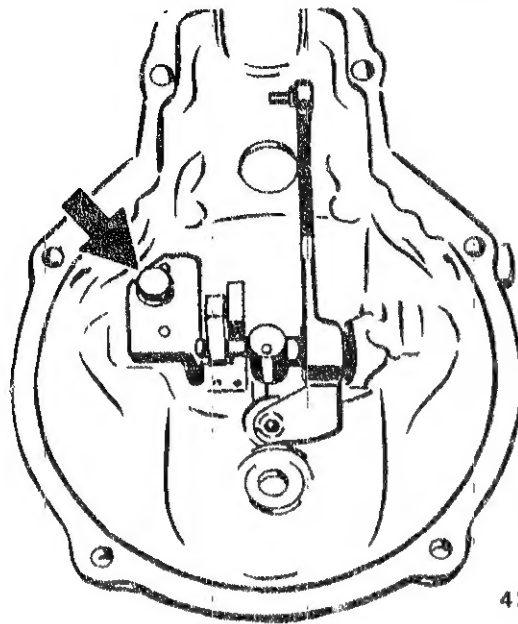


P pumps, 7100 Series

- 1 = Flat-head screw (Torx screw) 6...8 Nm
- 2 = Torx screw 8...10 Nm

Note: The Torx screws used here are micro-encapsulated and must always be replaced.

TOOLS AND DEVICES



420/0034-1

Arrow = Hexagon screw

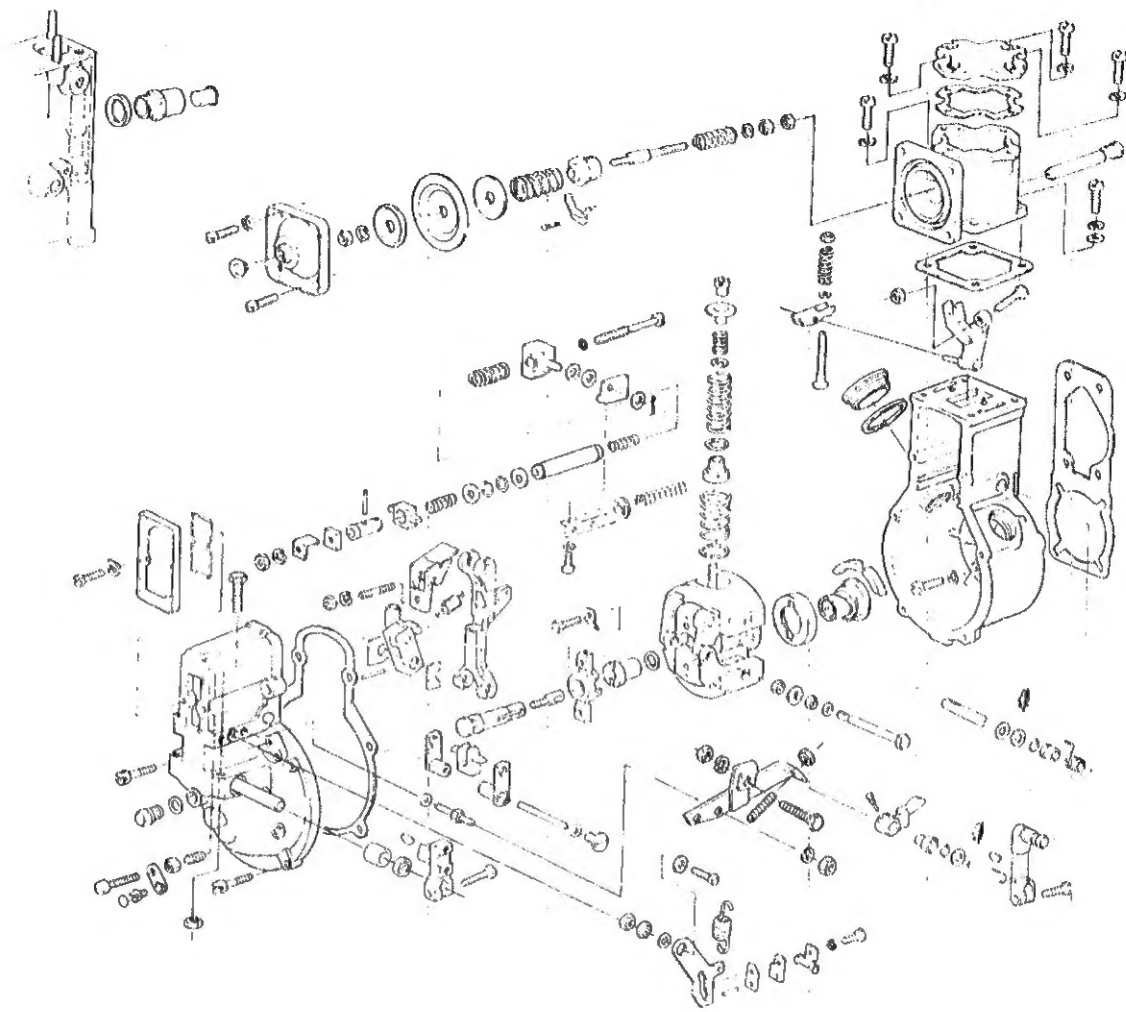
6 - 8 Nm

Designation	Part number	Application
Puller	KDEP 2886	Loosening flyweight assembly from camshaft
Blade-type socket wrench	KDEP 2988	Loosening round nuts of flyweight assembly
Clamping device	KDEP 2894	Removing and installing governor springs
Depth gauge Caliper gauge Straightedge	Commercially available	Testing and adjusting sliding-block dimension
Measuring tool	1 682 329 038	
Locking sleeves	KDEP 1586	Testing and adjusting free play of flyweights
Pin wrench	KDEP 2989	Adjusting governor-spring pretension
Push-in/push-out drift punch	KDEP 1584	Pressing governor setting-shaft bearing in and out
Taper reamer 3 HSS, 1:100	Commercially available	Reaming bores of control-lever shaft
Drift punch (5 mm)	Commercially available	Locating the swivelling lever
Clamping device	KDEP 1545	Locking pump drive
Shim ring	KDEP 1630	
Locking device	KDEP 1077	Fixing start-of-delivery sensor

Lubricants

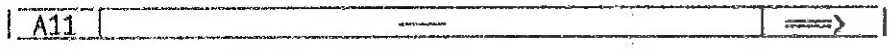
Designation	Application	Part number
Sealant and adhesive Loctite		Commercially available
Special gear grease Ft v 27	50 g tube	5 700 052 005
	250 g tube	5 700 052 025
Hylomar sealant VS 9844-KK	25 g tube	5 927 350 002
Sealing paint yellow KK 26 V 9	30 g tube	

For production reasons:
continued on the following
coordinate.



420/483

EXPLODED ILLUSTRATION



General

- * Always renew worn or damaged components as well as sealing elements.
- * Injection-pump components which are to be stored for a lengthy period are to be covered and protected against rust.
- * Leak test on governor compartment:
In order to avoid the possibility of skin irritation on immersion in test bath, grease hands beforehand with protective cream and wash with soap and water after completing test.
- * Cleaning of parts:
Wash out parts in commercially available cleaning agent, such as chlorothene NU, which is not readily flammable.
Then blow out with compressed air.
- * Safety precautions to be observed when handling combustible liquids:

In West Germany:

Order Governing Work with Combustible Liquids (Vbf) as issued by the Federal Labor Ministry (BmA).

Safety regulations for the handling of chlorinated hydrocarbons

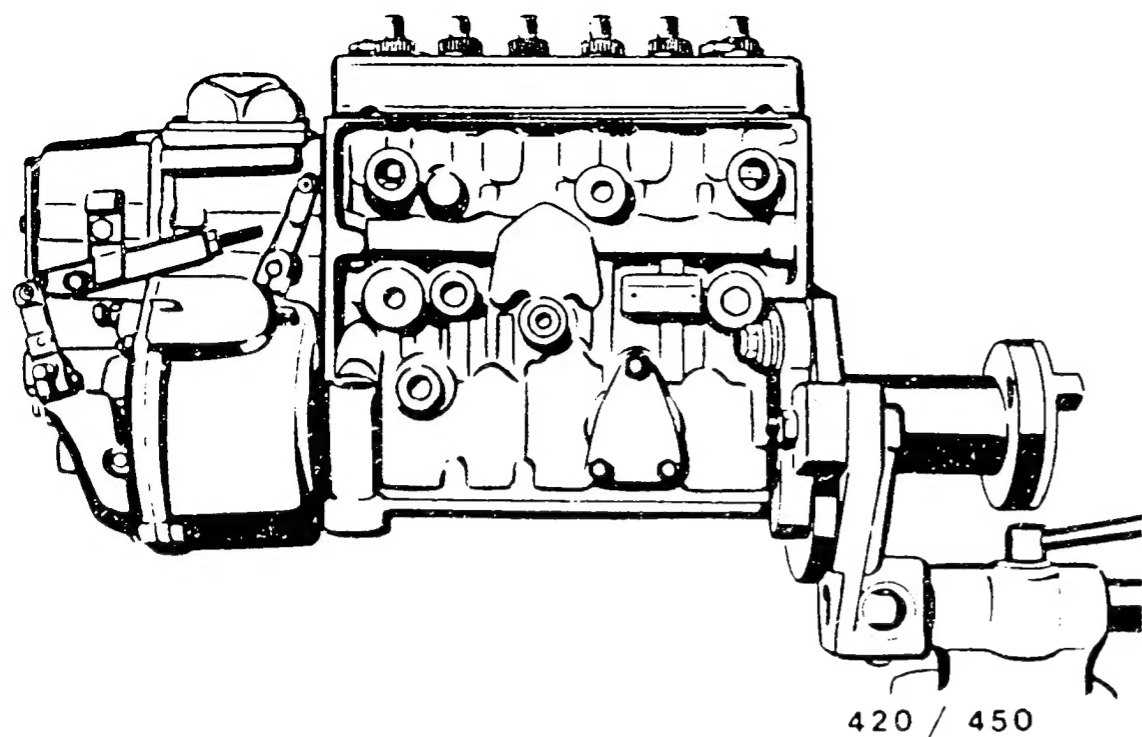
- for companies ZH 1/222

- for employees ZH 1/129

as issued by the Hauptverband für Gewerbliche Berufsgenossenschaften (Zentralverband für Unfallschutz und Arbeitsmedizin), Langwartweg 103, D 5300 Bonn 5.

The corresponding local regulations are to be heeded in countries other than West Germany.

For production reasons:
continued on the following
coordinate.



420 / 450

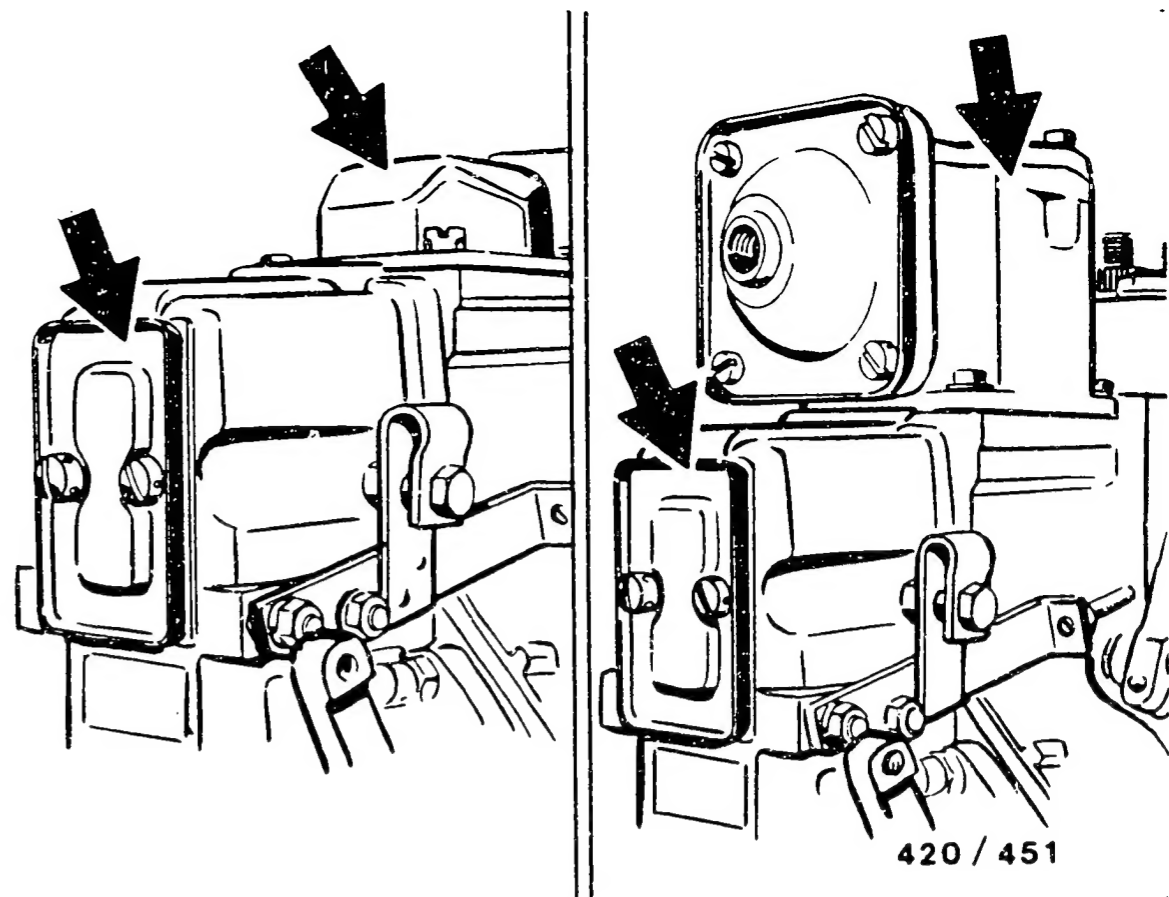
REGLER ZERLEGEN

Voraussetzung:

Einspritzpumpe je nach Baureihe und Befestigungsart aufspannen (zugehörige Pumpen-Instandsetzungsanleitung beachten).

Gegebenenfalls angebaute Antriebsteile (Lamellenkupplung, Zahnrad oder Spritzversteller) mit entsprechenden KDEP- oder geeigneten handelsüblichen Werkzeugen entfernen.

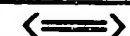
Antriebskupplung je nach Konus-Durchmesser der Nockenwelle aufstecken und festziehen.

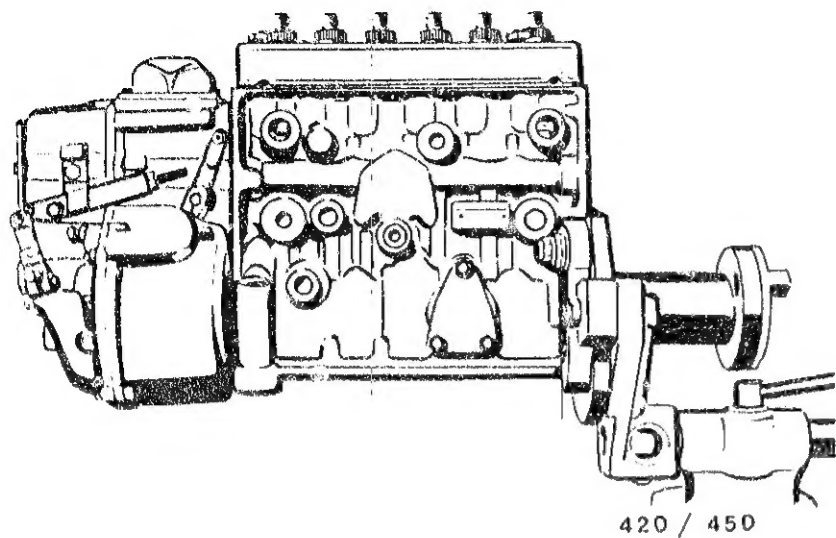


420 / 451

Schrauben entfernen, Deckel abnehmen (Bild a, Pfeile).

Schrauben entfernen, LDA und Deckel abnehmen (Bild b, Pfeile).





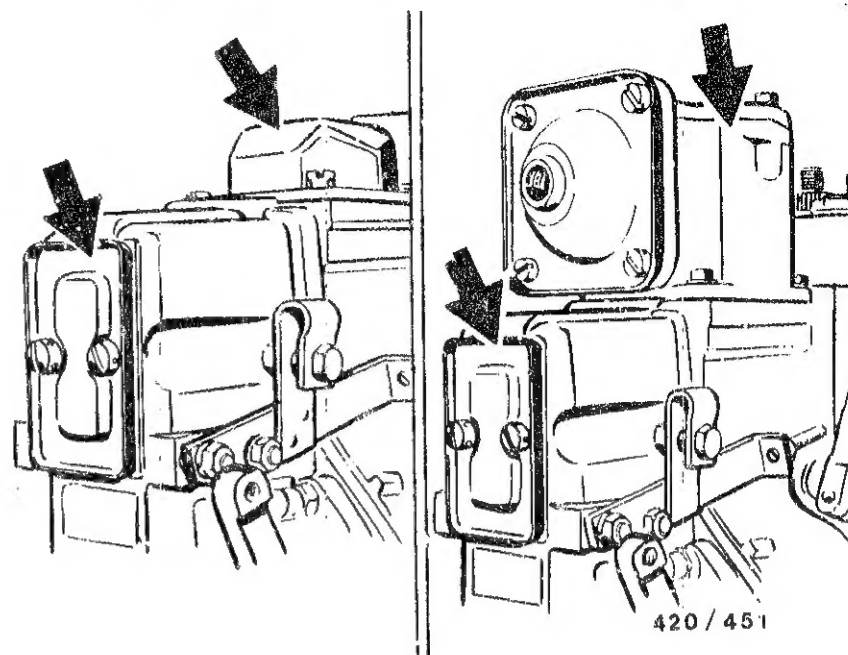
DISMANTLING THE GOVERNOR

Prerequisite:

Clamp the injection pump as appropriate for the series and method of mounting (observe the relevant pump repair instructions).

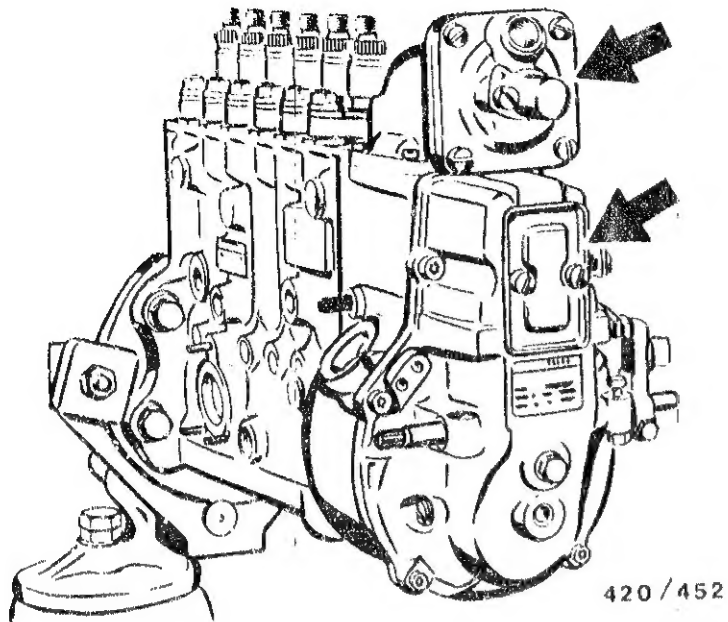
If necessary, remove any built-on drive components (multi-plate clutch, toothed gear or timing device) using the appropriate KDEP or suitable commercially-available tools.

Position and tighten the driving coupling, selecting the correct coupling in accordance with the taper diameter of the camshaft.



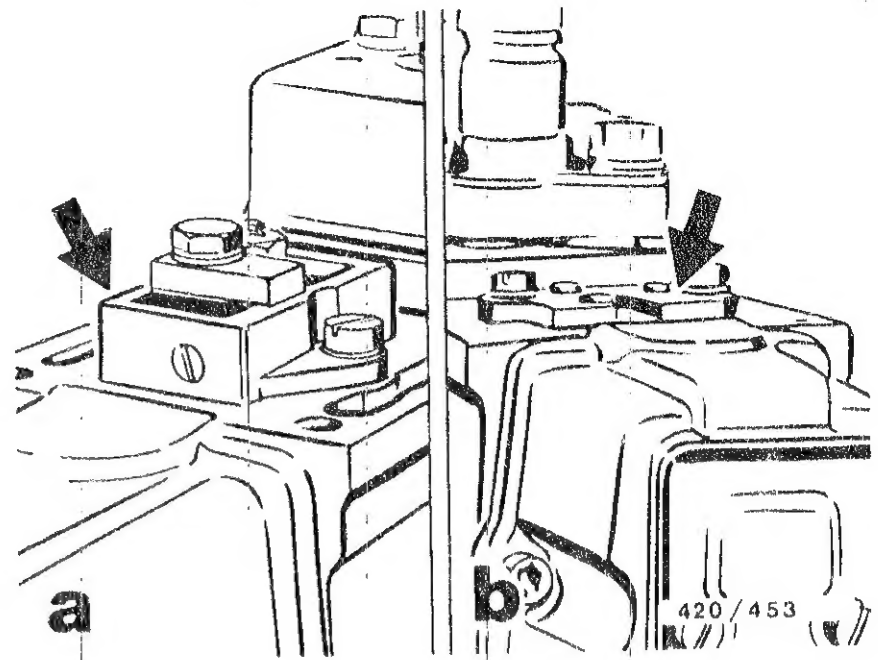
Remove screws, remove cover (illustration a, arrows).

Remove screws, remove manifold-pressure compensator (illustration b, arrows).



P pumps of the 7100 series.

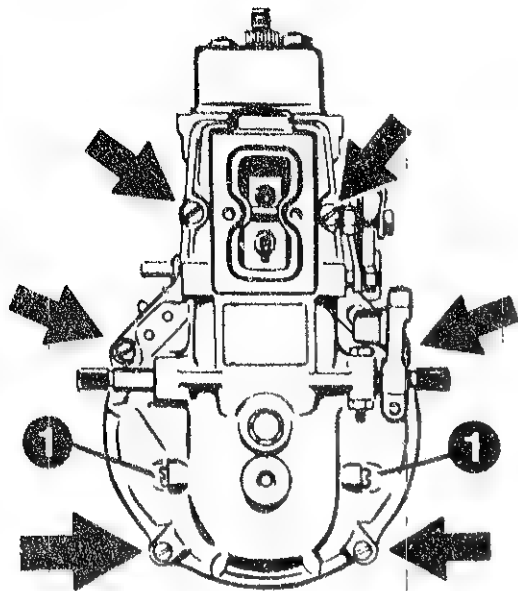
Remove screws, remove manifold-pressure compensator and cover (illustration, arrows).



Remove full-load stop (illustration a, arrow).

P pumps of the 7100 series.

Remove full-load stop (illustration b, arrow).

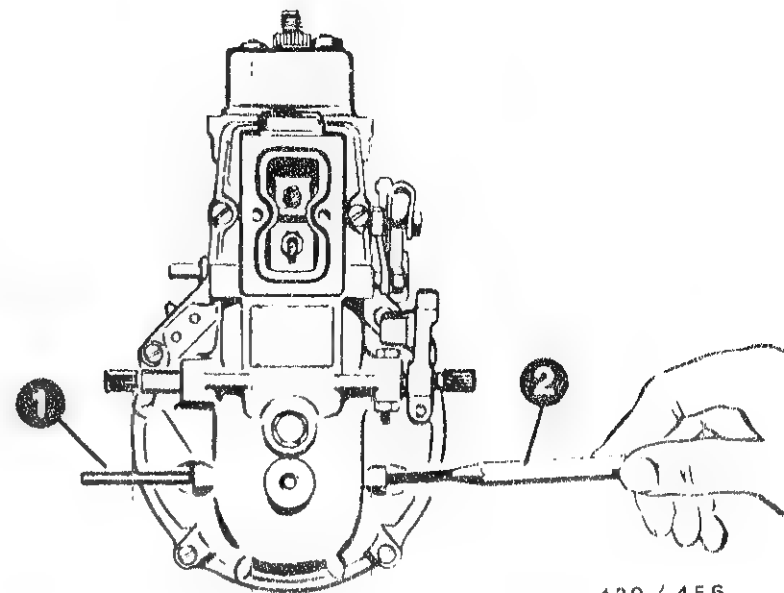


420 / 454

1 = Oval-head screws

Unscrew oval-head screws (1).

Unscrew fastening screws of governor cover (illustration, arrows).
 If necessary, separate governor cover from governor housing by carefully knocking it using a rubber hammer.

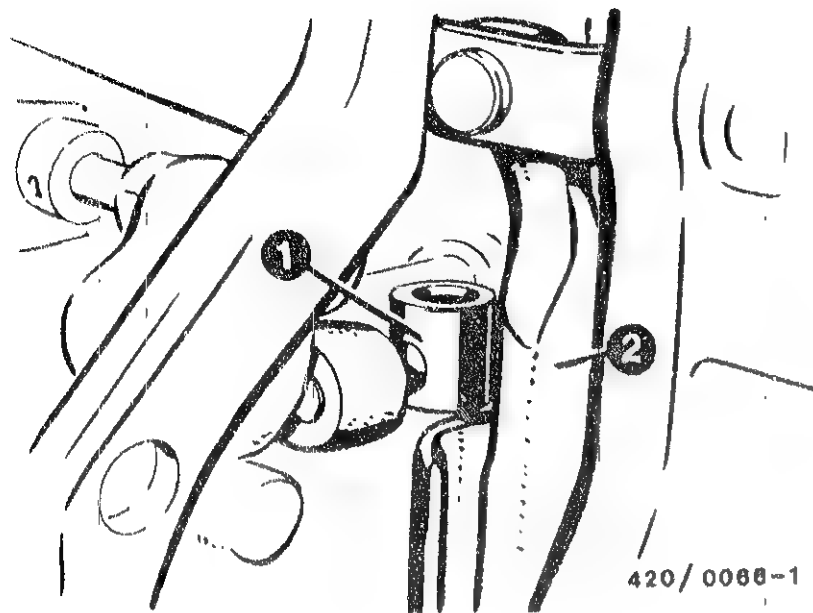


420 / 456

1 = Straight pin

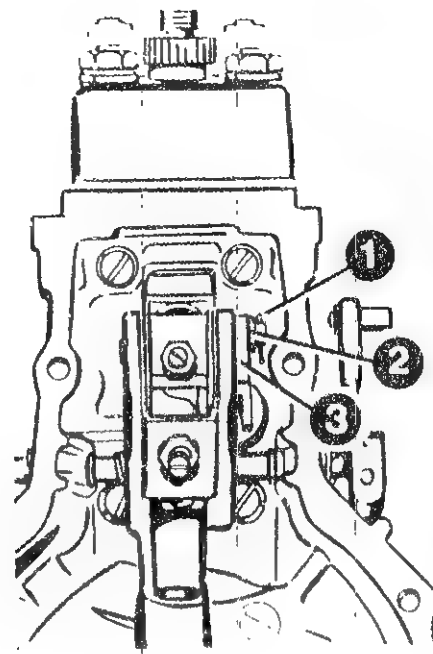
2 = Drift punch (5 mm diameter)

Push out the straight pin from the governor cover by hand using a drift punch.



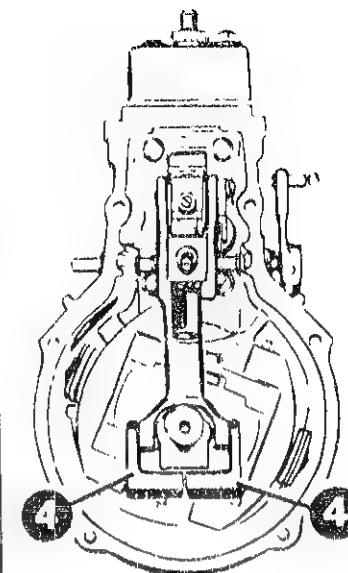
- 1 = Guide block
- 2 = Fulcrum lever

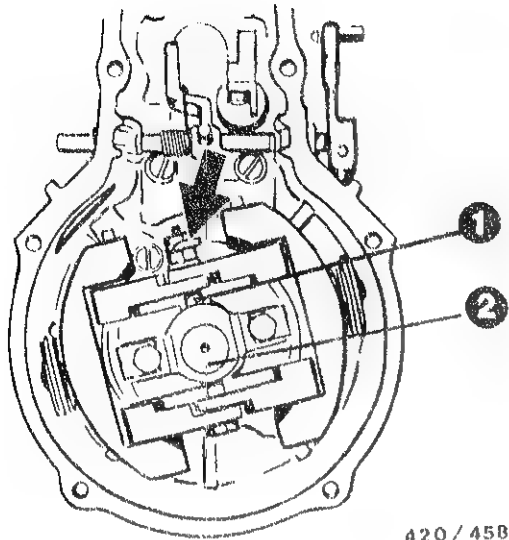
Position control lever vertical and pull guide block out of fulcrum lever upwards.



- 1 = Split pin
- 2 = Plain washer
- 3 = Strap
- 4 = Swivelling lever

Remove split pin (1) from axle of drive hub, remove plain washer (2). Push axle out of the strap (3) and remove link fork.



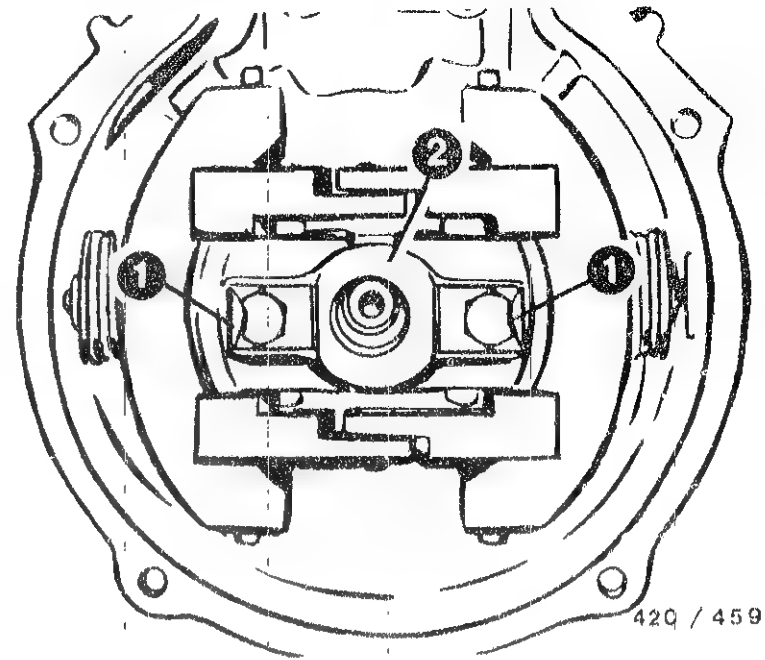


420 / 458

- 1 = Coupling bolt
- 2 = Bearing pin

Bend up tab washer (arrow) at coupling bolt and unscrew hexagon nuts.

Pull coupling bolt upwards out of flyweight assembly and then pull bearing pin out of the guide bushing.

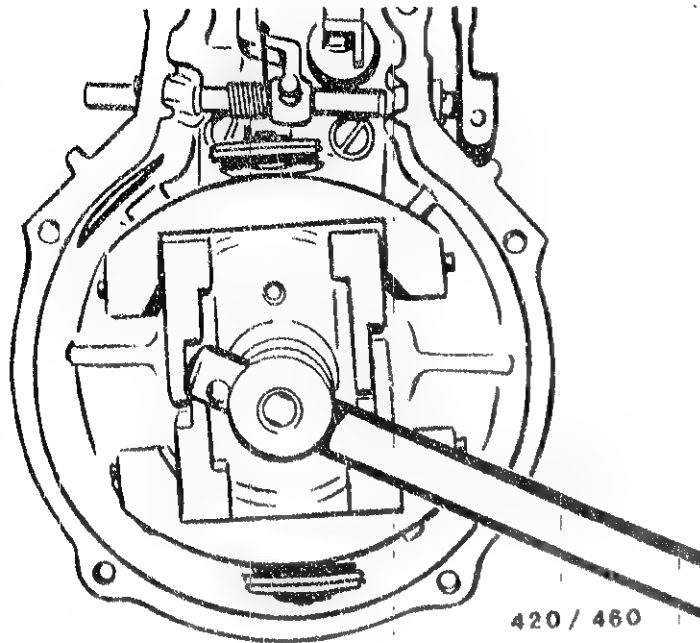


420 / 459

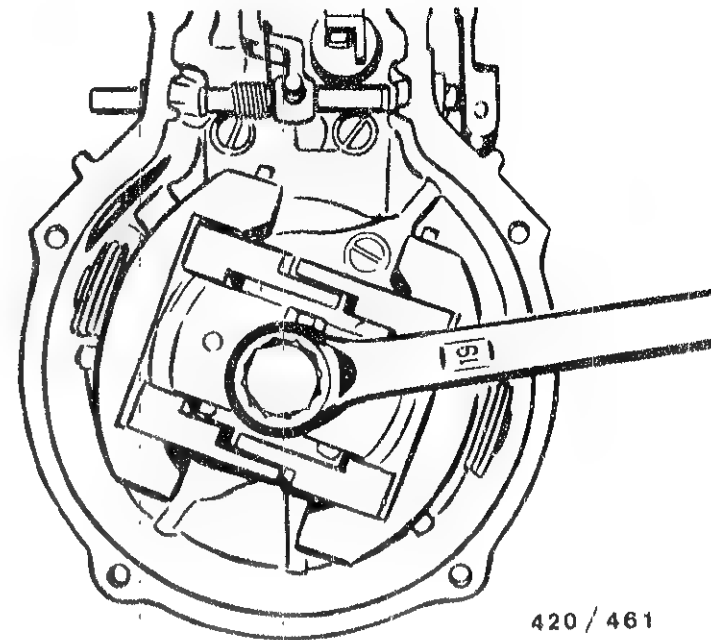
- 1 = Tab washer
- 2 = Guide bushing

Bend up tab washer and unscrew fastening screws of guide bushing.

Remove guide bushing.



Loosen round nut of the flyweight assembly using socket wrench KDEP 2988 and unscrew.



Loosen flyweight assembly from camshaft using puller KDEP 2886.

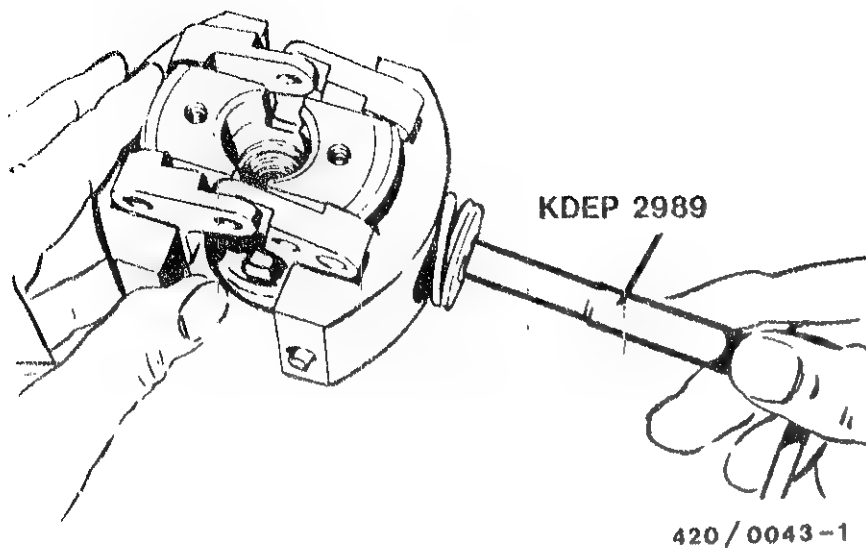
Unscrew puller and remove shim for adjustment of the longitudinal play of the flyweight assembly.

B11

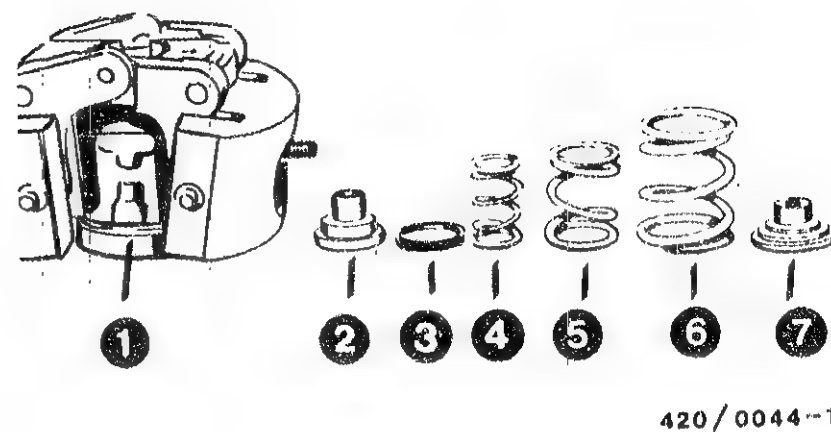


B12



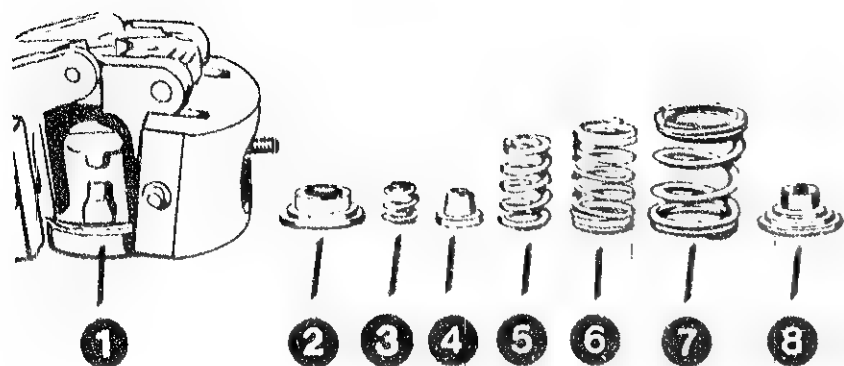


Unscrew round nut from threaded pin of flyweight assembly using pin wrench KDEP 2989.



- | | |
|---------------------------|--------------------------------|
| 1 = Flyweight assembly | 4/5 Max.-speed control springs |
| 2 = Inner spring seat | 6 = Idle spring |
| 3 = Shims
(if present) | 7 = Outer spring
seat |

Remove spring seat, governor springs and shims from the flyweight assemblies.



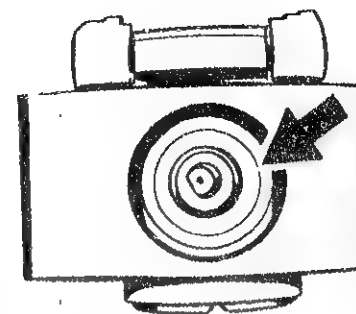
420/0045-1

- 1 = Flyweight assembly 5/6 Max.--speed control springs
 2 = Inner spring seat 7 = Idle spring
 3 = Aux. max.--spd.con.spr. 8 = Outer spring seat
 4 = Spring retainer

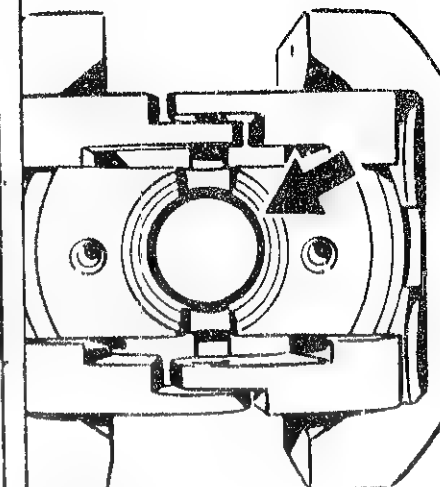
With a flyweight assembly with auxiliary maximum-speed control spring, remove the components illustrated from the flyweights.

Note:

This flyweight assembly can be distinguished from the normal RQV...K version due to the fact that the pretension of the spring is greater.



a



b

420/0096

TESTING THE COMPONENT PARTS

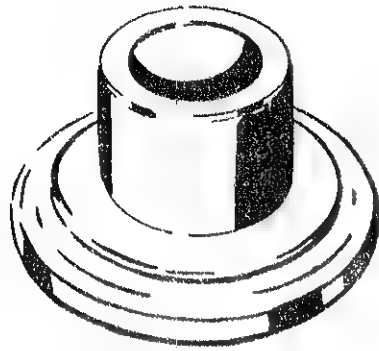
Wash out all the component parts thoroughly, making sure that they are clean. Replace any worn or damaged parts.

Replace all flat flange gaskets, radial-lip-type oil seals, rubber buffers and tab washers.

Test the flyweight assembly

Replace flyweight assembly if any of the forms of damage listed below are present:

- abraded flyweight bases (illustration a, arrow)
- deformed prism (illustration b, arrow)
- loose retaining pin (can be displaced axially)
- wear at bell cranks
- bent threaded pin.



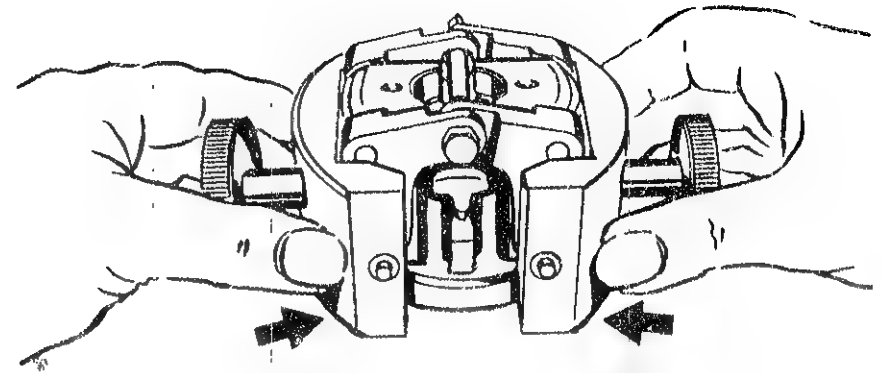
420/0046-1

In order to avoid renewed abrasion, a hardened disk 2 420 101 027 may be inserted in the flyweight base as a remedial measure with a new flyweight assembly.

In order to prevent the idle stage from being reduced by the thickness of the disk inserted, it is necessary to use an inner spring seat (illustration) that is shorter by the corresponding amount.

Idle stage 2 mm, the spring seats 2 420 328 033 ... 035; idle stage 3.5 mm, the spring seat 2 420 328 036.

The thickness of the new spring seat is determined from the thickness of the old spring seat minus the dimension of the hardened disk.



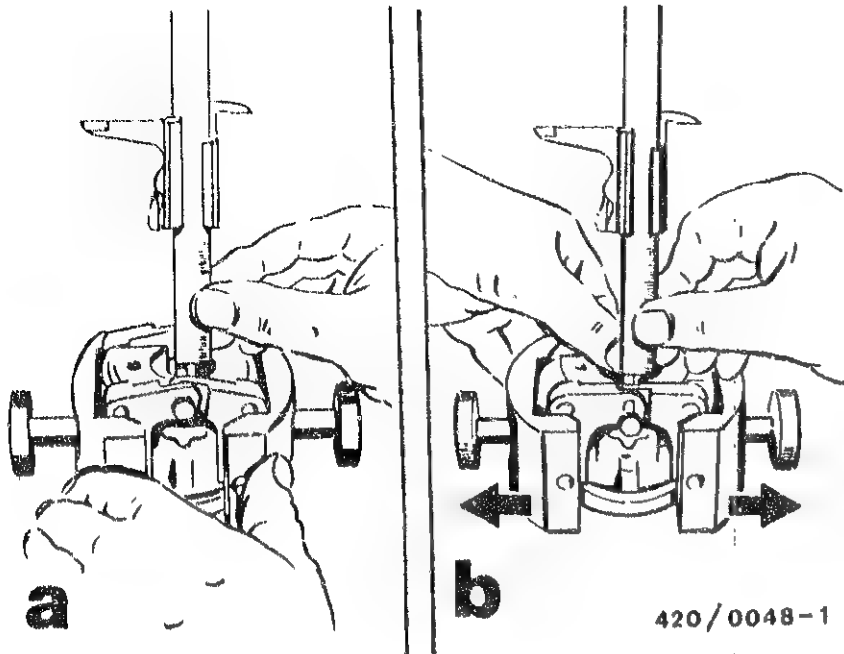
420/0047-1

For determining the respective idle stage, insert the old spring seat into the two flyweight assemblies and fix with locking sleeves KDEP 1586.

Position the drive end of the flyweight assembly so that it makes flat, even contact.

Insert coupling bolt as a temporary measure.

Press the flyweight assemblies together (illustration, arrows).



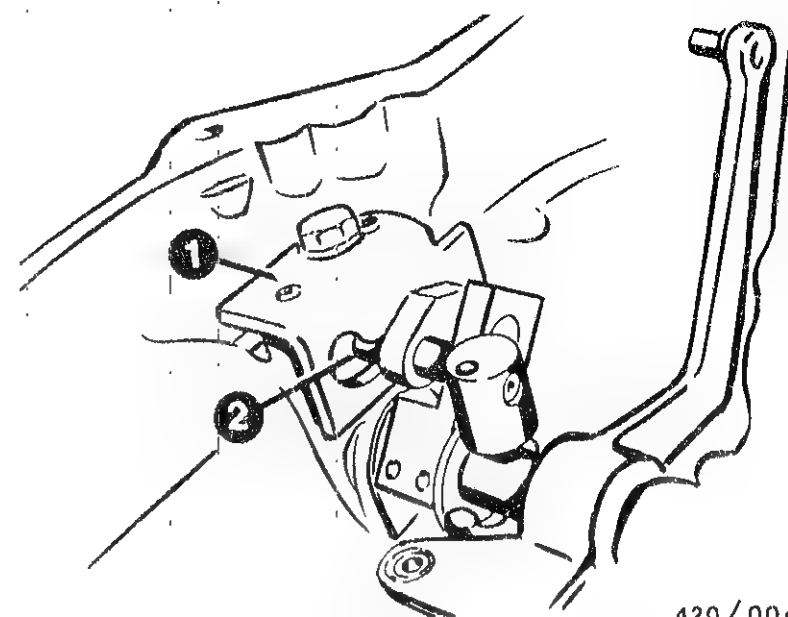
420/0048-1

Measure the clearance between the coupling bolt and contact surface using a caliper gauge and note down the result (illustration a). Afterwards, pull the flyweight assemblies apart up to the stop of the spring seat (illustration b, arrows).

Press on the coupling bolt and once again measure the clearance between coupling bolt and coupling surface (illustration b).

The difference between the two dimensions gives the idle stage of 2 or 3.5 mm.

Unscrew the locking sleeves and remove the spring seat from the flyweight assemblies.



420/0049-1

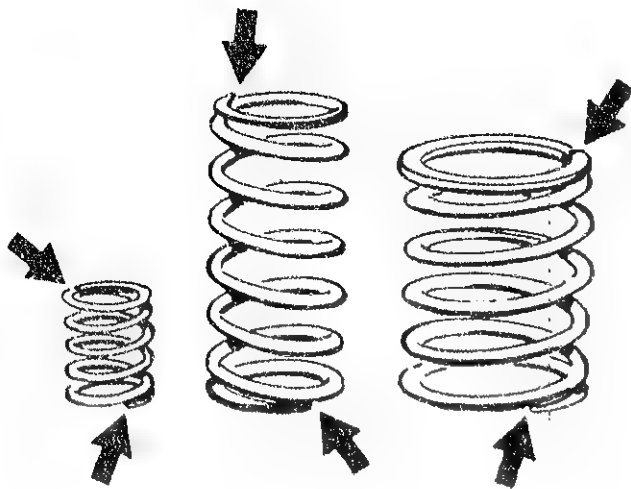
1 = Template

2 = Pilot

Check template (plate cam) and pilot

Check the freedom of movement and precision of fit of the pilot in the template, and also check for scoring, pressure marks and wear.

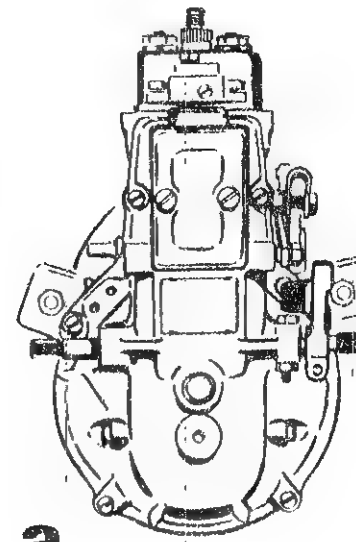
In the case of wear or damage, replace linkage lever and (or) template.



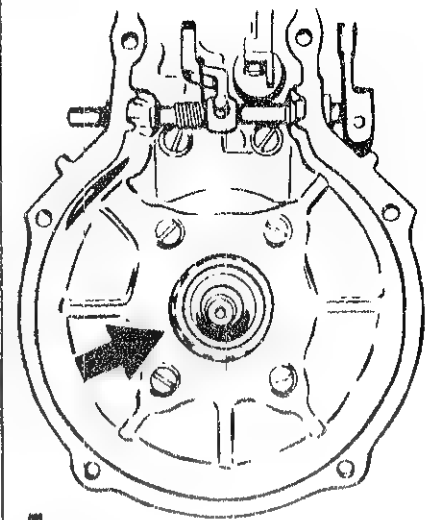
420 / 0098

Test governor springs

Governor springs which are corroded or whose surface is damaged must be exchanged due to the risk of fracture. The area of the 1st winding contact surface must be checked (arrows).



a

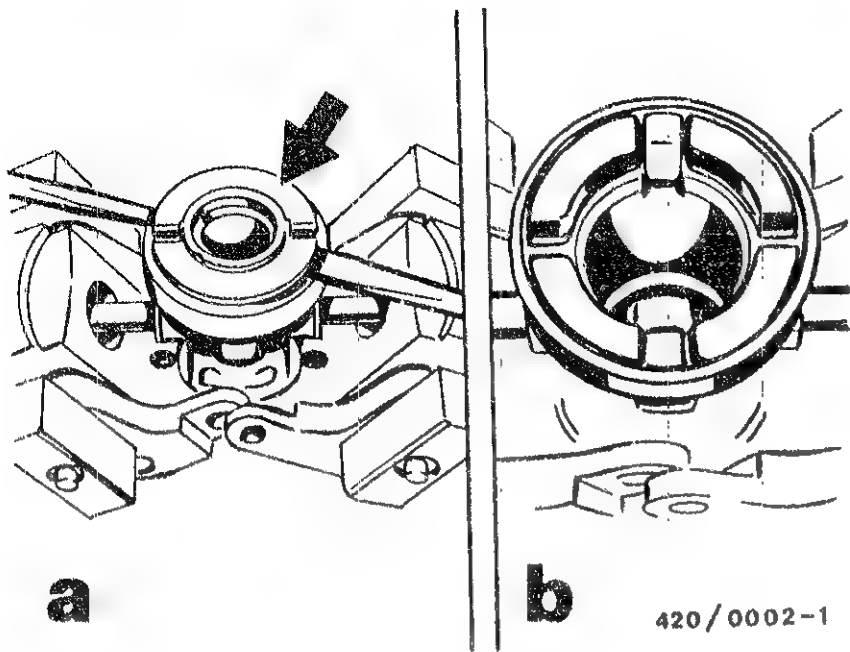


b

420 / 462

Check governor cover and housing

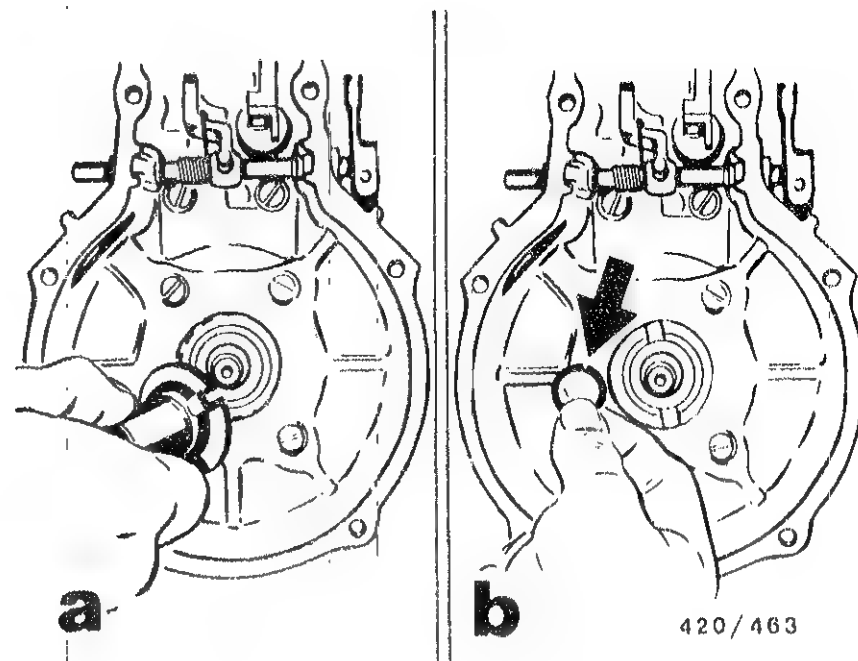
Carry out the following visual examinations:
 -Thread on stay bolt and inserts
 -Camshaft seating in governor housing for cracks (illustration b, arrow)
 -Evenness of sealing surfaces.



REPAIRING THE GOVERNOR

Lever out the drive hub of the flyweight assembly (illus. a, arrow) in an even, regular manner using a screwdriver.

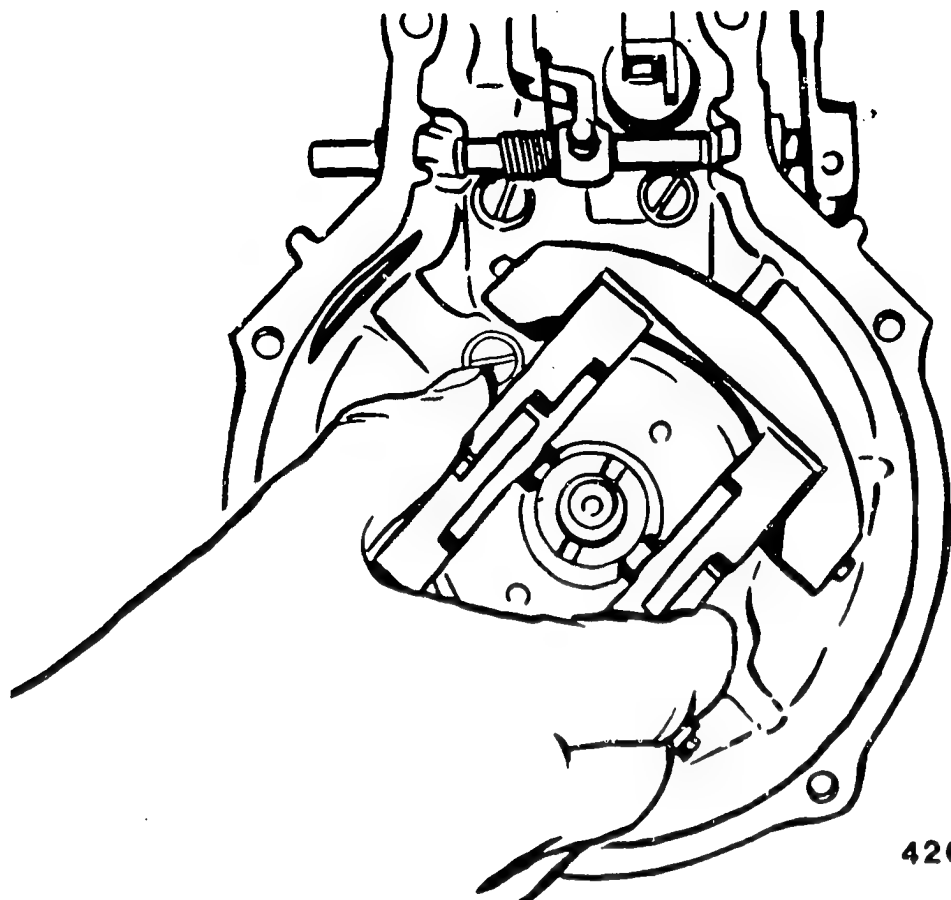
Remove rubber buffer (illustration b).



For assessing the longitudinal play of the flyweight assembly, push the drive hub on to the taper of the camshaft.

Insert the shim available (illustration b, arrow).





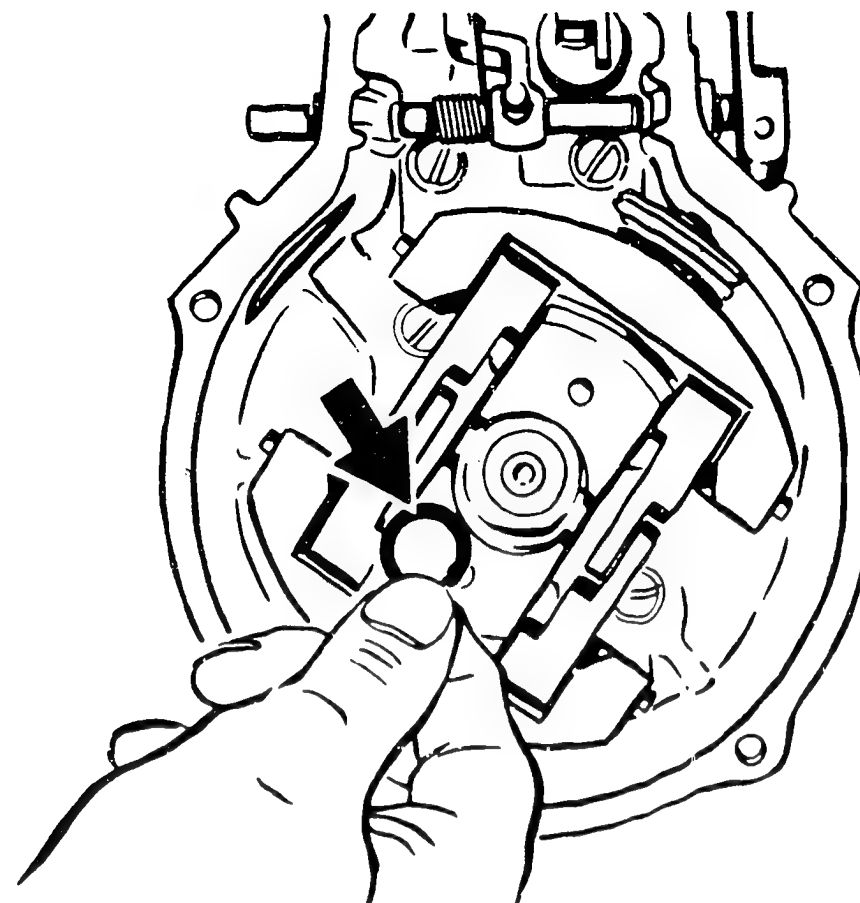
420 / 464

Regelgruppe ohne Gummipuffer einsetzen

Rundmutter aufschrauben und Regelgruppe mit Steckschlüssel KDEP 2988 und dem vorgeschriebenen Drehmoment anziehen.

Anzugsmomente:

Mitnehmer mit Schmierwendel	50...60 Nm
Mitnehmer ohne Schmierwendel	65...75 Nm



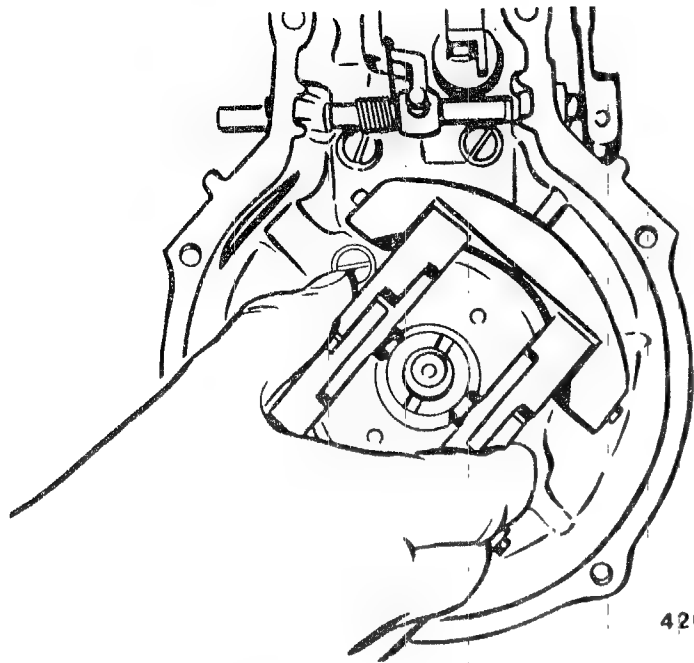
420 / 465

Bei richtig eingestelltem Längsspiel muß die Regelgruppe radial leichtgängig und ohne zu klemmen leicht drehbar sein, axial darf kein merkliches Spiel auftreten.

Läßt sich dagegen die Regelgruppe zu schwer oder zu leicht drehen, dann durch wechseln der Ausgleichscheibe (Bild, Pfeil) Längsspiel korrigieren.

Hinweis:

Damit bei der Beurteilung des Längsspiels die Fliehgewichte nicht am Reglergehäuse schleifen, Kuppelbolzen behelfsmäßig in die Regelgruppe einsetzen.



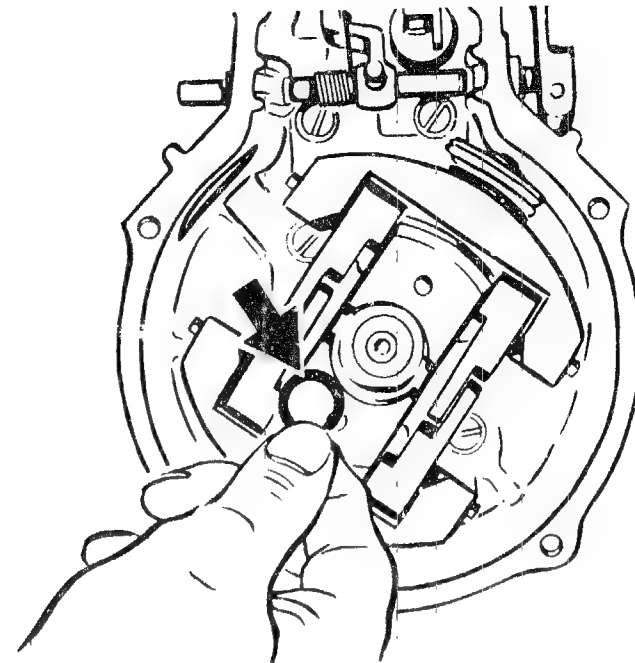
420/464

Insert flyweight assembly without rubber buffer

Screw on round nut and tighten flyweight assembly with socket wrench KDEP 2988 to the specified torque.

Tightening torques:

Drive hub with lubrication spiral 50...60 Nm
 Drive hub without lubr. spiral 65...75 Nm



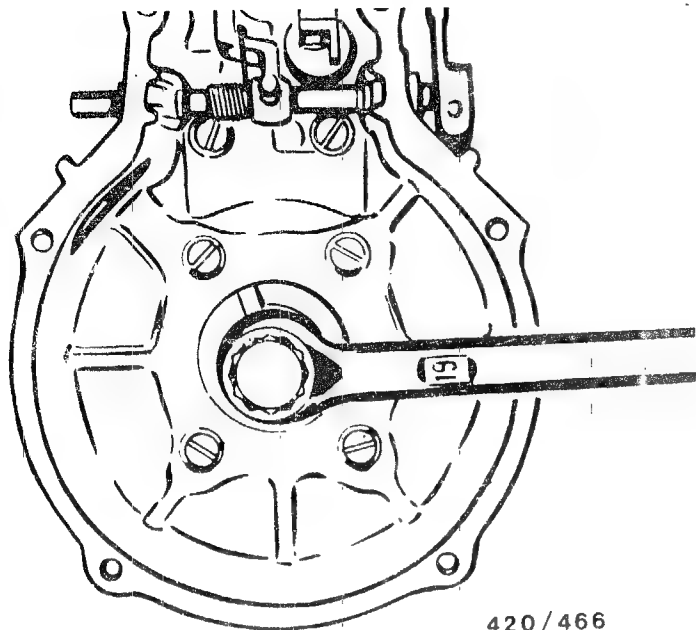
420/465

If the longitudinal play is set correctly, the flyweight assembly must have freedom of movement in the radial dir. and must be able to be turned easily without jamming, whereas there must be no noticeable play in the axial dir.

If, however, the flyweight assembly cannot be turned easily or can be turned too easily, then correct the longitudinal play by exchanging the shim (illustration, arrow).

Note:

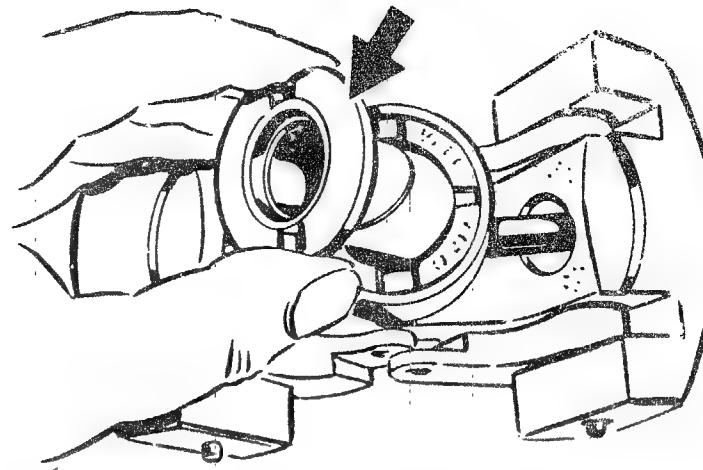
In order to ensure that the flyweights do not rub on the governor housing while assessing the longitudinal play, insert coupling bolt into the flyweight assembly as a temporary measure.



420/466

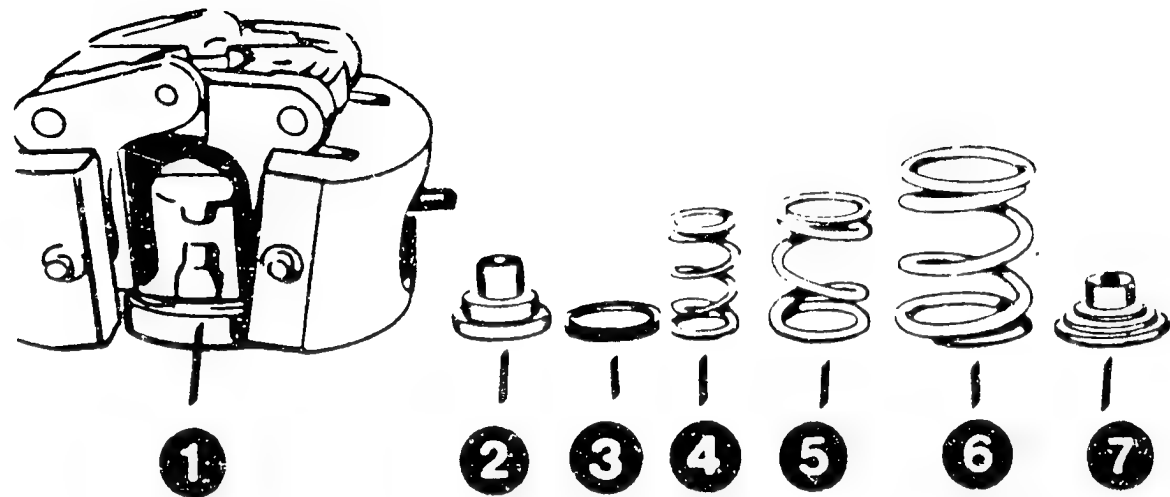
After setting the longitudinal play, remove the flyweight assembly once again.

If the drive hub is seized, loosen from camshaft using puller KDEP 2886.



420/0007-1

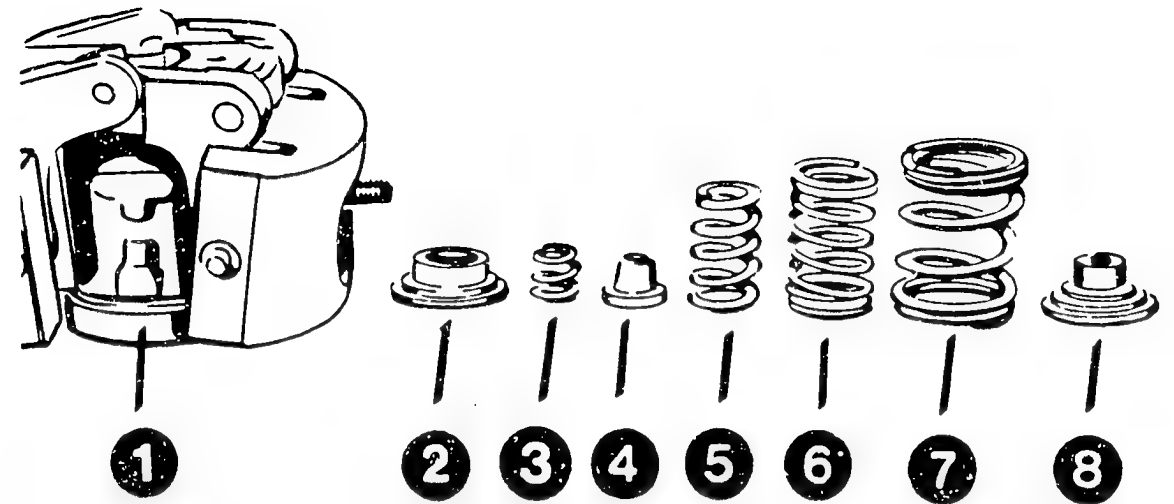
Insert new, lightly oiled rubber buffer into the flyweight assembly and then press in the drive hub (arrow).



420/0044-1

- | | |
|---|------------------------------|
| 1 = Regelgruppe | 4/5 = Endregelfeder |
| 2 = Innerer Federteller | 6 = Leerlauffeder |
| 3 = Ausgleichscheiben
(sofern vorhanden) | 7 = Äußerer Feder-
teller |

Federteller, Regelfedern und Ausgleich-
scheiben nach Reihenfolge Bild Pos. 2-7
in Fliehkraftteile einsetzen.

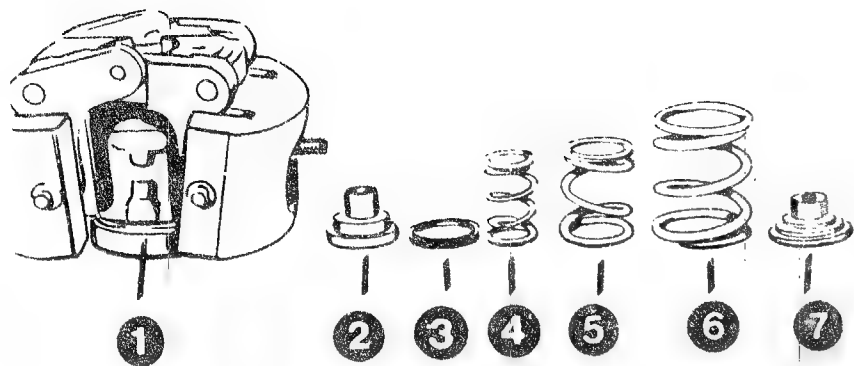


420/0045-1

- | | |
|-------------------------|------------------------------|
| 1 = Regelgruppe | 5/6 = Endregelfeder |
| 2 = Innerer Federteller | 7 = Leerlauffeder |
| 3 = Zusatzendregelfeder | 8 = Äußerer Feder-
teller |
| 4 = Federkapsel | |

Regelgruppe mit Zusatzendregelfeder

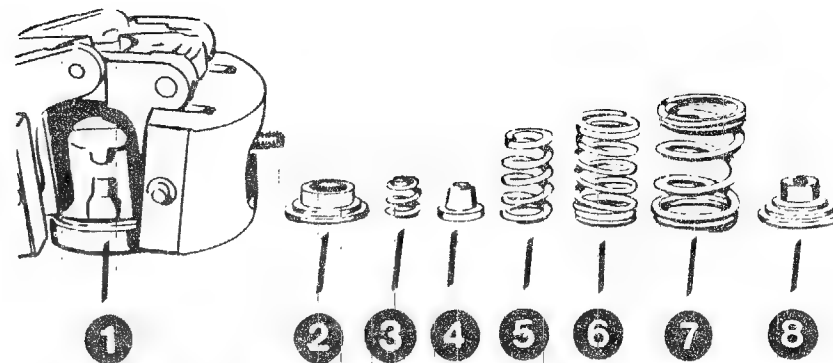
Federteller/Kapsel und Regelfedern nach
Reihenfolge Bild Pos. 2...8 in Fliehkrafts-
teile einsetzen.



420/0044-1

- | | |
|---------------------------|---------------------------------|
| 1 = Flyweight assembly | 4/5 = Max.-speed control spring |
| 2 = Inner spring seat | 6 = Idle spring |
| 3 = Shims
(if present) | 7 = Outer spring
seat |

Insert spring seat, governor springs and shims into flyweight assemblies following the sequence in the illustration, items 2-7.

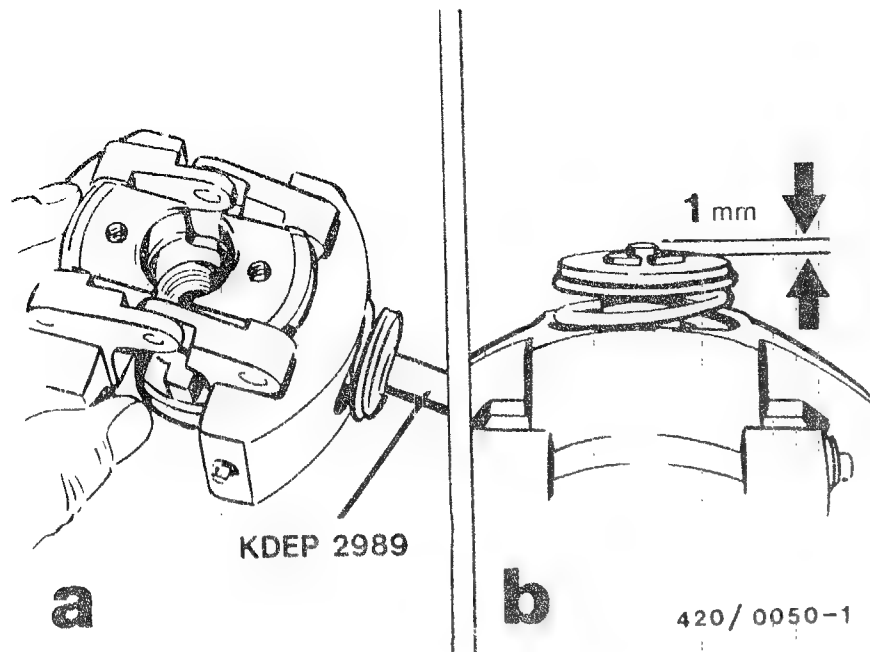


420/0045-1

- | | |
|----------------------------|---------------------------------|
| 1 = Flyweight assembly | 5/6 = Max.-speed control spring |
| 2 = Inner spring seat | 7 = Idle spring |
| 3 = Aux.max.-spd.ctrl.spr. | 8 = Outer spring
seat |
| 4 = Spring retainer | |

Flyweight assembly with aux. maximum-speed control spring

Insert spring seat/retainer and governor springs into flyweight assemblies in accordance with sequence in the illustration, items 2-8.



	Old	New
Spring seat	1 420 520 002	2 420 520 001
Spring seat	1 420 520 003	2 420 520 002
Round nut	1 423 345 020	2 423 345 005

For limiting play and to enable more accurate adjustment, the upper spring seat and the round nut have been provided with closely stepped notches.

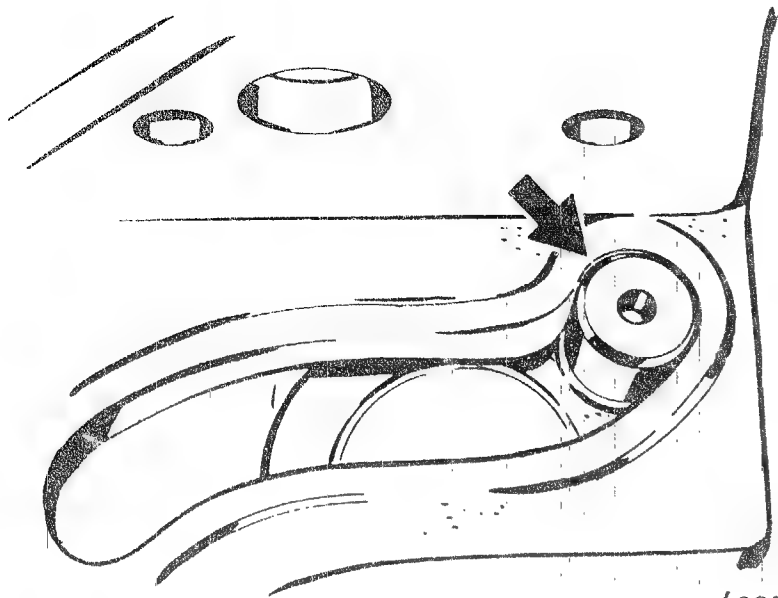
Old and new versions must not be installed together.

Only ever install the one or the other version of the spring seat and round nut.

Screw round nut onto threaded pin of flyweight assembly using pin wrench KDEP 2989 (illustration a).

When doing this, set a projection of 1 mm between threaded pin and round nut (illustration b).

Observe the note on the next page with regard to the upper spring seat and round nut.

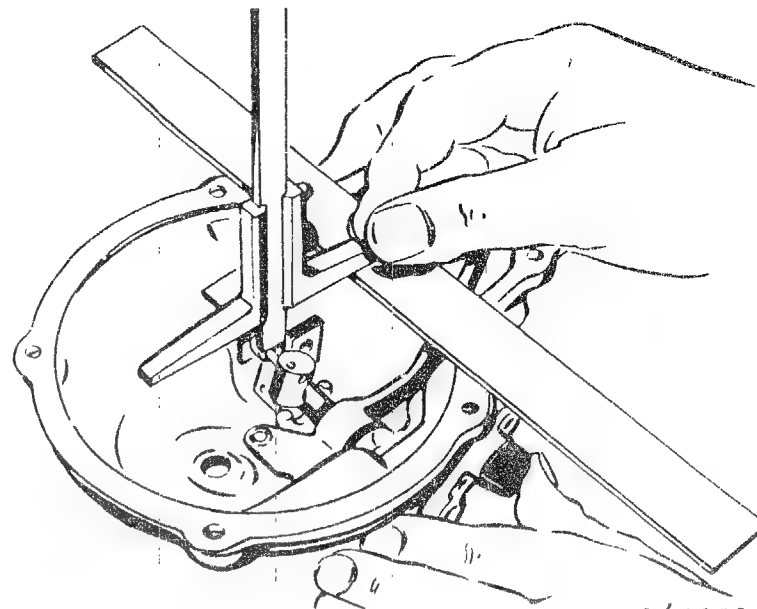


420/0051-1

Check the clearance dimension of the template (plate cam) and adjust.

Turn the control lever on the setting shaft so that the maximum-speed stop does not make contact.

Press control lever toward full load until the pilot of the linkage lever makes contact at the end of the cam path (arrow).

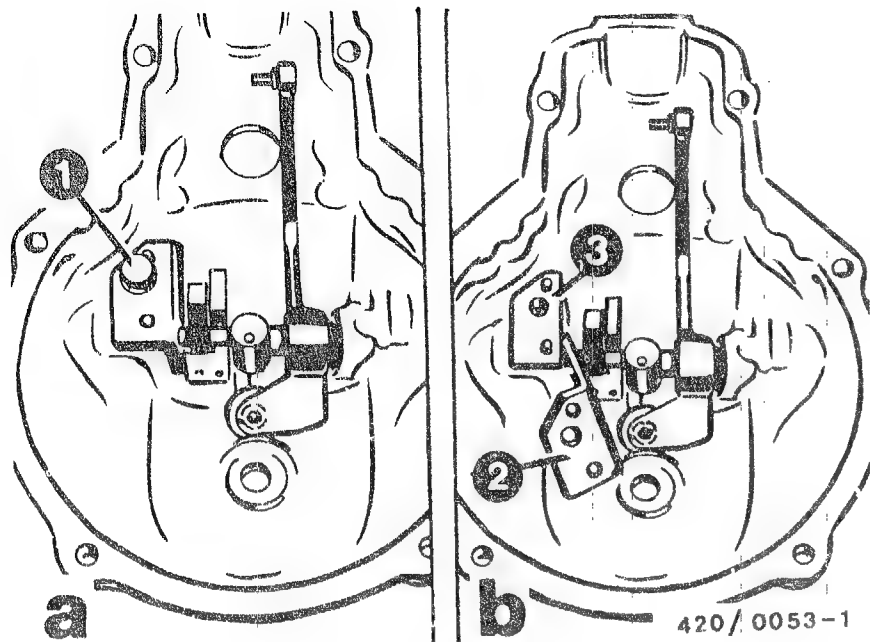


420/0052-1

Positioning new seal and rule.

Using a depth gauge, measure from the rule to the pilot.
The clearance is then the dimension measured minus the thickness of the rule plus 3 mm (half the diameter of the pilot).

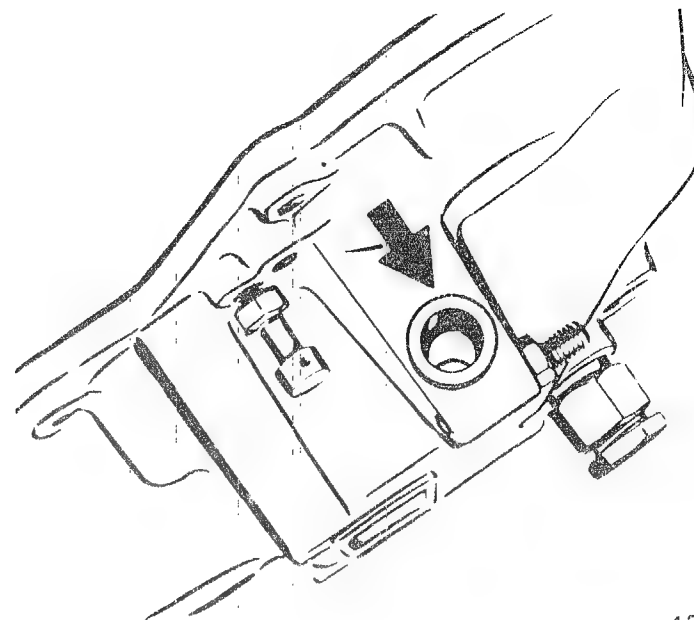
Specification: 24.4...24.6 mm



- 1 = Hexagon screw 3 = Intermediate plate
 2 = Template (plate cam)

If the clearance dimension is outside the specified tolerance, unscrew hexagon screw (illustration a).
 Remove template and adjust clearance by exchanging the intermediate plate (illustration b).
 Position template and tighten hexagon screw to 6 - 8 Nm.

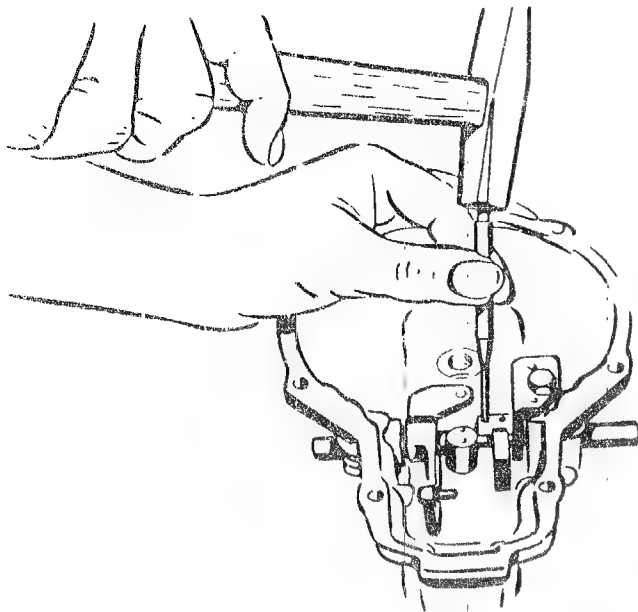
Repeat measurement.



420/0011-1

Carry out the procedures below only if the following conditions prevail:
 -bushings of the control-lever shaft are worn
 -control-lever shaft is worn or seized
 -guide block, plate cam and linkage lever are damaged.

Note:
 Always replace the radial seal of the control-lever shaft (arrow).



420/0054-1

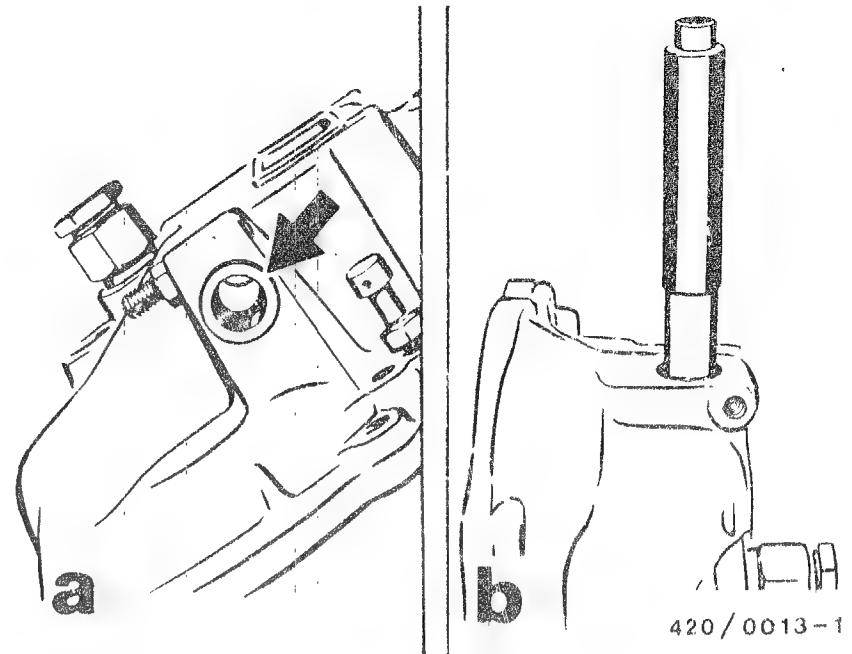
Position the linkage lever so that the deflection side of the taper pins points upward.

Drive out the taper pins (as can be seen in illustration).

Remove template (plate cam).

Pull setting shaft out of governor cover.

Remove control lever.



420/0013-1

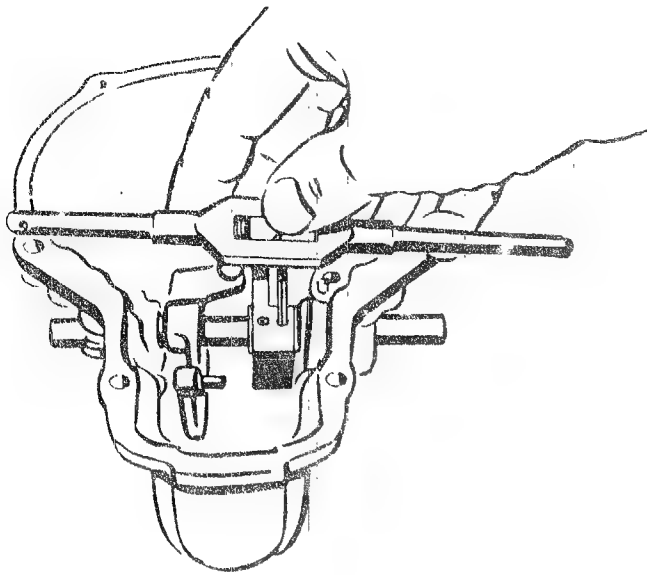
Remove radial-lip-type oil seals (illustration a, arrow).

Press out bushings using drift punch KDEP 1584 (illustration b).

While pressing out each bushing cushion governor cover at the opposite end.

Press in new bushings likewise using drift punch KDEP 1584.

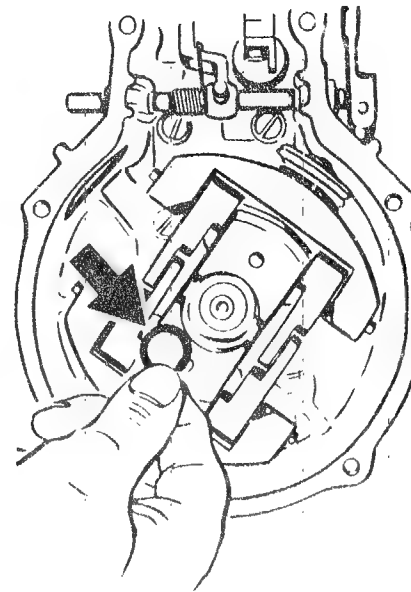
Insert radial-lip-type oil seals.



420/0055-1

Guide setting shaft on one side into governor cover.
 Push on linkage lever with intermediate plate and then push through setting shaft fully.
 Connect linkage lever with setting shaft by driving in the taper pins.
 Check the setting shaft for freedom of movement.
 Insert template and tighten fastening screw to 6 - 8 Nm.
 Mount control lever.

Note:
 With a new setting shaft, ream the locating bores using a taper reamer (see illustration).



420/467

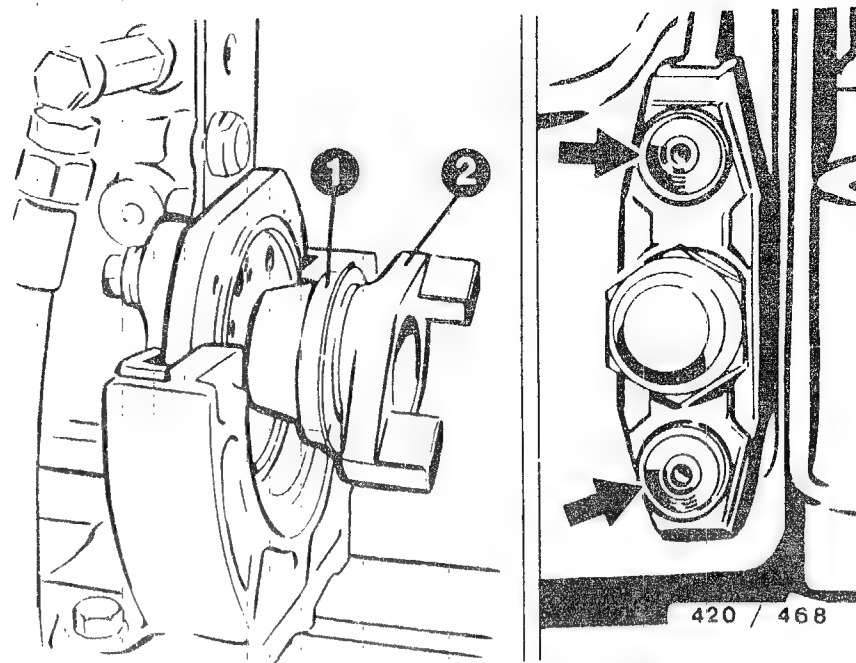
ASSEMBLING THE GOVERNOR

For the following procedures, use only component parts which are clean and neither worn nor damaged. Replace flat flange gaskets and tab washers.

Push flyweight assembly onto camshaft taper. Insert the correct longitudinal-play shim as determined (illustration a, arrow). Screw on round nut and tighten flyweight assembly to the specified torque using socket wrench KDEP 2988 (illustration b).

Tightening torques:
 Drive hub with lubrication spiral: 50 - 60 Nm
 Drive hub without lubrication spiral: 65 - 75 Nm

After tightening, check the flyweight assembly for freedom of movement. To do this, lock the flyweights with a screwdriver and turn the camshaft. If the camshafts cannot be turned, repeat adjustment of the longitudinal play of the flyweight assembly.



P-pumps, 7100 series

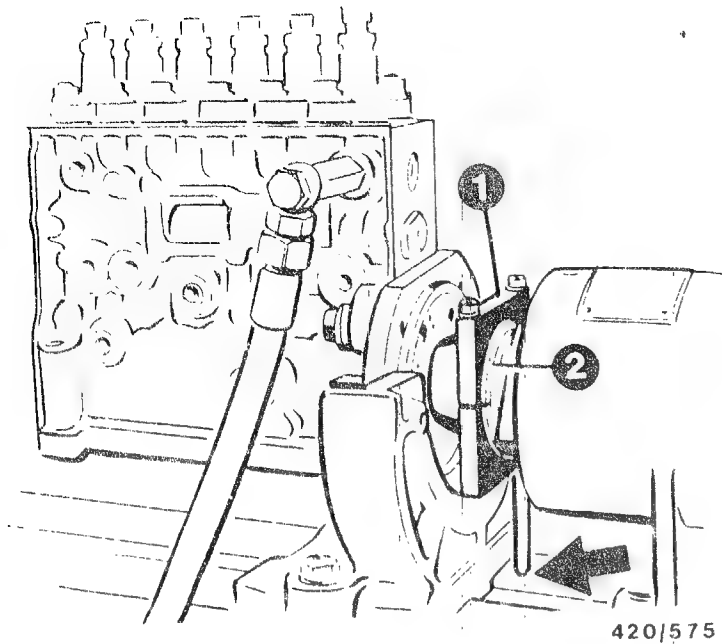
- 1 = Shim ring KDEP 1630
- 2 = Coupling half

Cut a slot into the head of the shear-head screws (arrows) and screw out with screwdriver. Remove displacement flange.

Clamp injection pump on to test bench in a manner appropriate to the method of mounting the pump (observe test instructions pertaining to pump).

Position coupling half (2) with slipped-on shim ring (1) on shaft butt end of injection pump and tighten.

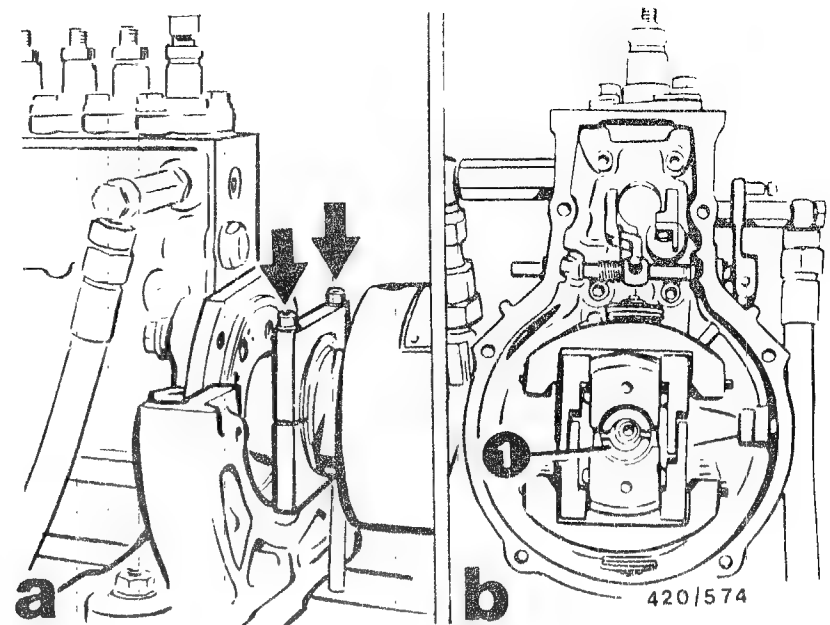
Move pump to prestroke, if applicable pay attention to angle shift (start-of-delivery mark). Settings are to be taken from the respective test-specification sheet.



420/575

- 1 = Clamping device KDEP 1545
- 2 = Shim ring KDEP 1630

Position KDEP 1545 so that the support bolt points in the direction of rotation of the pump and is supported on the test-bench bed (arrow). Slightly tighten screws by hand (tool must be able to be turned slightly on the ring).



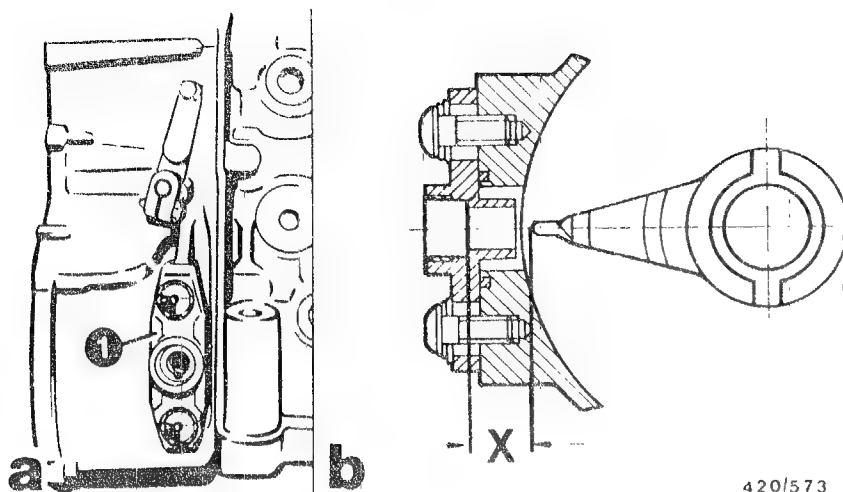
420/574

- 1 = Round nut

Press clamping device on to shoulder of shim ring. Tighten screws (illustration a, arrows) on KDEP 1545 and thus lock pump drive.

Push flyweight assembly on to shaft butt end and position pointer of drive hub in center of housing opening (illustration b).

Slightly tighten round nut (1) by hand.



420/573

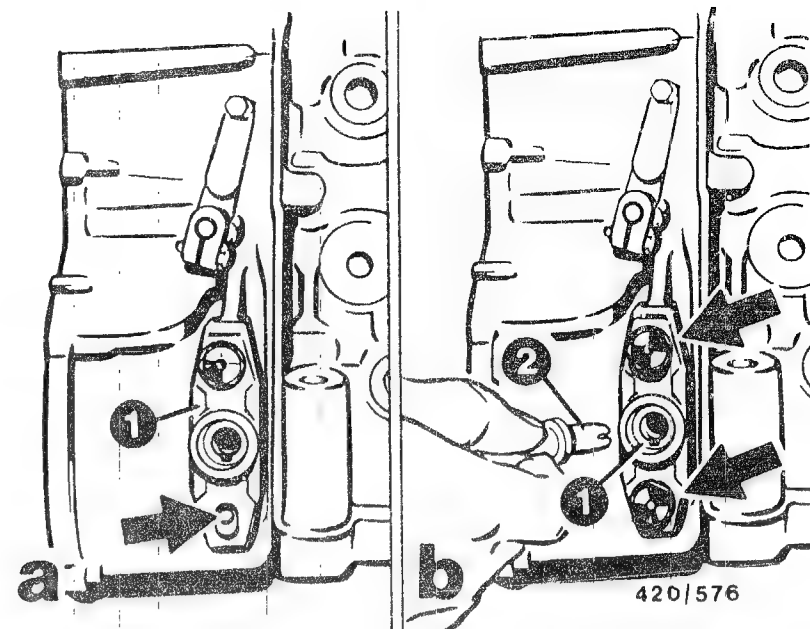
1 = Displacement flange

Mount displacement flange (1) on governor housing.

Slightly tighten shear-head screws (caution! Do not shear off screw head).

Dimension X = 15.6 +/- 0.5 mm.

Measure setting (X) (illustration b).
The setting (X) is corrected by replacing the displacement flange (the displacement flanges have different thicknesses).



420/576

1 = Displacement flange

2 = Pointer locator or locking device KDEP 1077

Loosen shear-head screws.

Position displacement flange (illustration a, item 1) on governor housing centrally in slot (arrow).

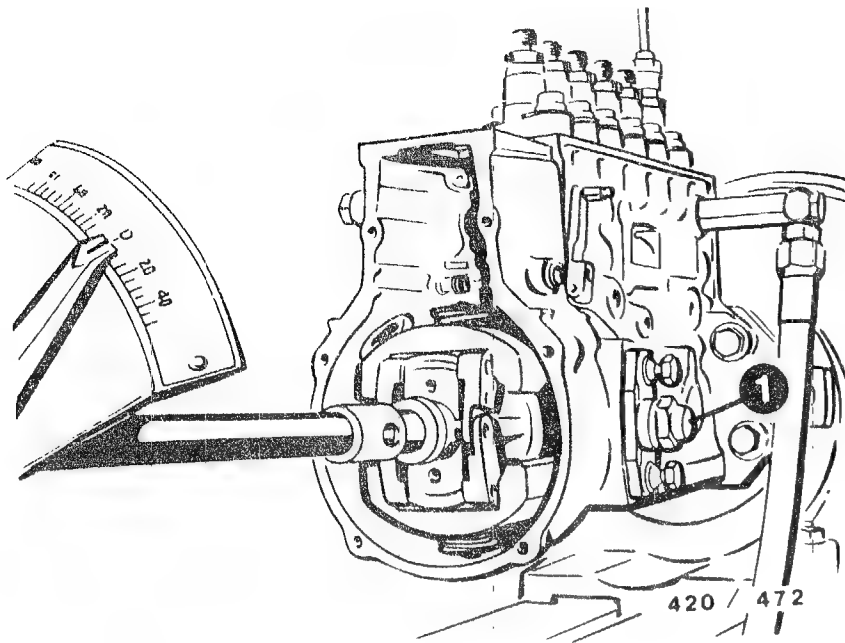
Slightly tighten shear-head screws (illustration b, arrows).

Caution! Do not shear off screw heads.

Insert pointer locator or locking device KDEP 1077 (2) into displacement flange.

Note:

Use is to be made of the locking device KDEP 1077 if there is no pointer locator.



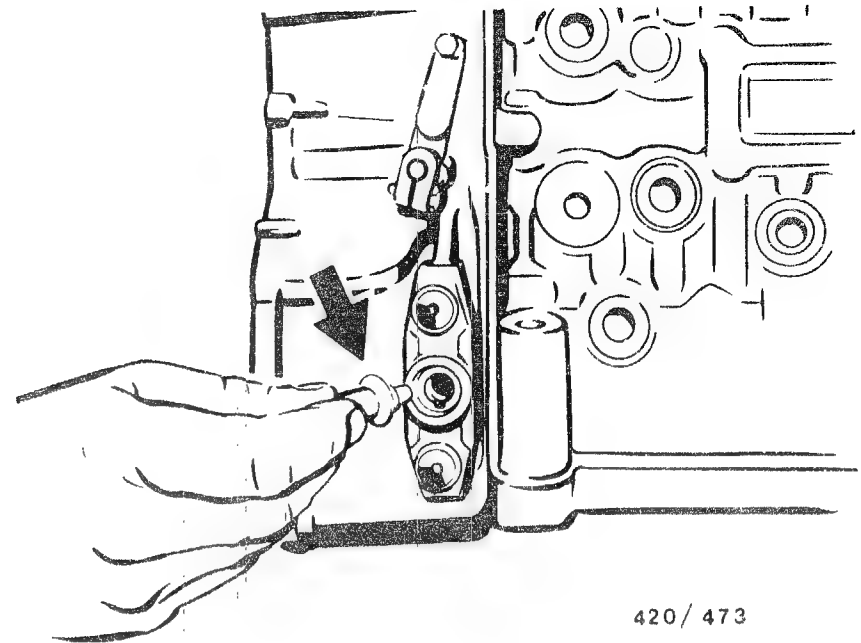
1 = Union nut

Locate pointer locator with union nut in shoulder of the displacement-flange opening.

Tighten round nut to pre-tightening torque
 $M = 10 \text{ Nm}$.

Twist off union nut (1), remove pointer locator.

Tighten round nut to $65..75 \text{ Nm}$.



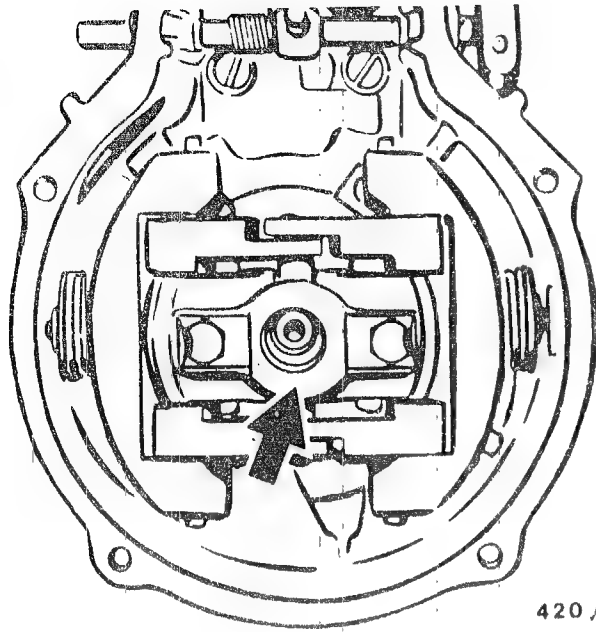
Check setting of start-of-delivery sensor, pay attention to angle shift (start-of-delivery mark) if necessary.

Loosen shear-head screws, insert pointer locator in displacement flange and fix with union nut or use locking device KDEP 1077.

Tighten shear-head screws (screw head must be turned off).

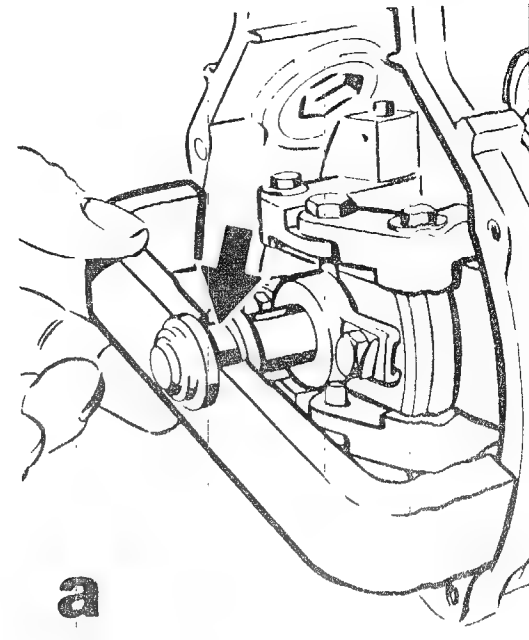
Unscrew union nut, remove pointer locator and insert again turned through 180° (arrow) or unscrew locking device KDEP 1077. Tighten union nut (use new seal ring) to tightening torque $M = 50 +10 \text{ Nm}$.

Remove clamping device KDEP 1545 and coupling half; remove KDEP 1630.

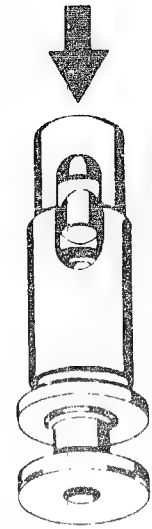


420 / 474

Insert guide bushing (arrow) into flyweight assembly.
Tighten fastening screws to 6 - 8 Nm and make sure that they do not become loose by beading the tab washers.



a



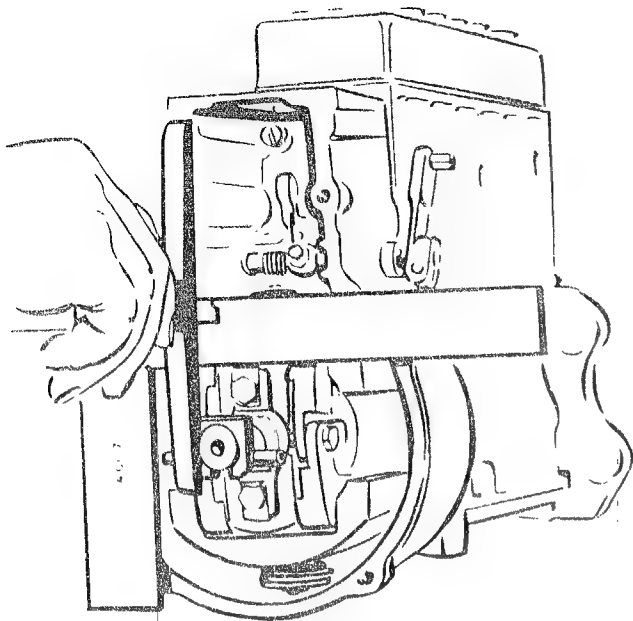
b

420 / 475

Adjusting the sliding-block dimension

Insert bearing pin into guide bushing. Push coupling bolt through bell crank and bearing pin. Adjust sliding-block dimension with measuring tool 1 682 329 038. When the setting is correct, the measuring tool must engage in the sliding-block guide of the bearing pin (illustration a, arrow).

For adjusting, pull coupling bolt and bearing pin out of flyweight assembly. Set the sliding-block dimension by turning the adjusting screw (illustration b, arrow).

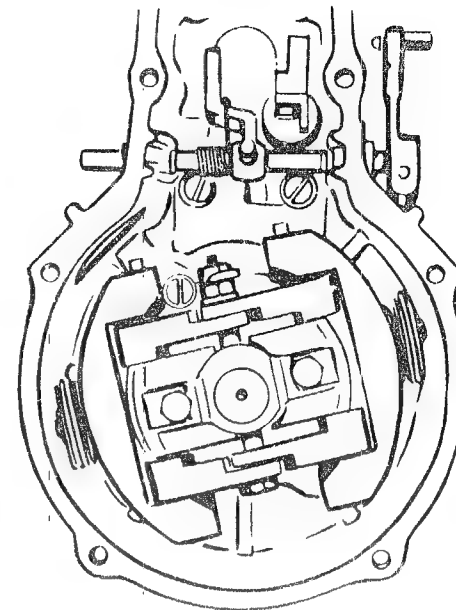


420 / 476

For determining the sliding-block dimension without measuring tool, position straightedge along the governor housing and measure the clearance between the sliding block and straightedge with a depth gauge (illustration). The sliding-block dimension is then the dimension measured plus the thickness of straightedge minus half the sliding-block thickness.

Specification: 34.9 - 35.1 mm (without seal)

Mount bearing pin and coupling bolt.
Test adjustment and repeat adjustment procedure if necessary.

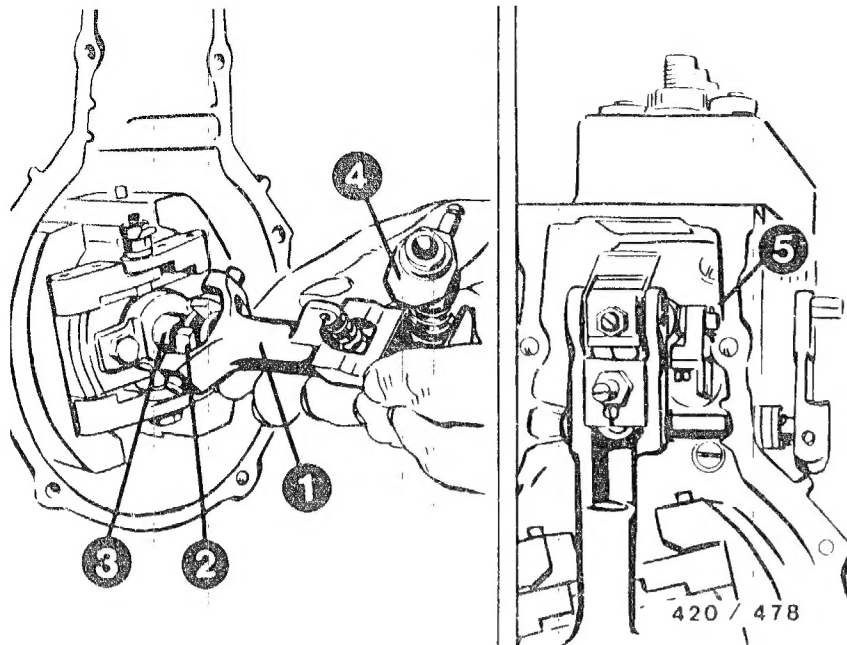


420 / 477

Position/screw on plain washer, hexagon nut, locking washer and lock nut in specified sequence.

Adjust longitudinal play of coupling bolt to 0.5 - 1.5 mm (do not push outer bell crank outward when doing this).

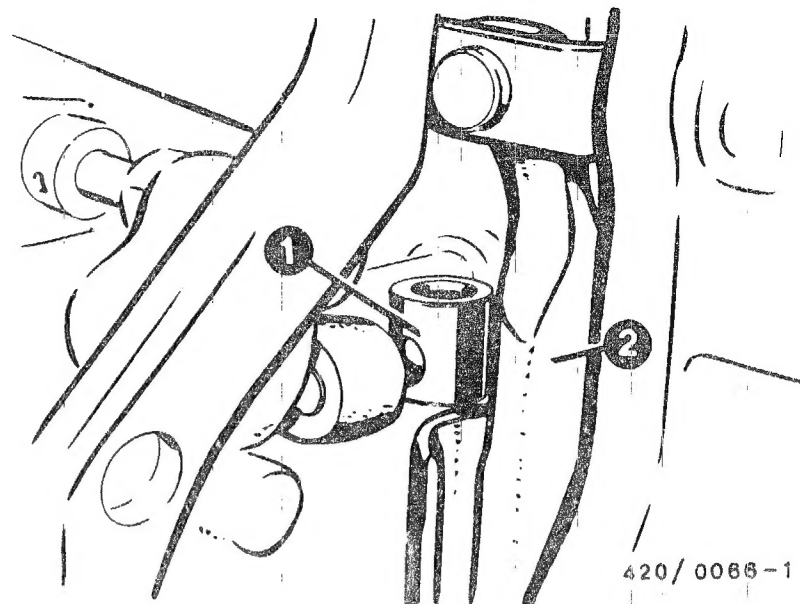
Countertighten hexagon nuts to 6 - 8 Nm.
Bend locking washer over the two hexagon nuts.



1 = Link fork
2 = Sliding block
3 = Bearing pin

4 = Drive hub
5 = Split pin

Insert sliding block into guide of the bearing pin.
Hook fulcrum lever into sliding block (illustration a).
Insert plain washers between drive hub and strap, and guide axle into the strap.
Push plain washer on to the axle and secure axle with split pin (illustration b).



1 = Guide block

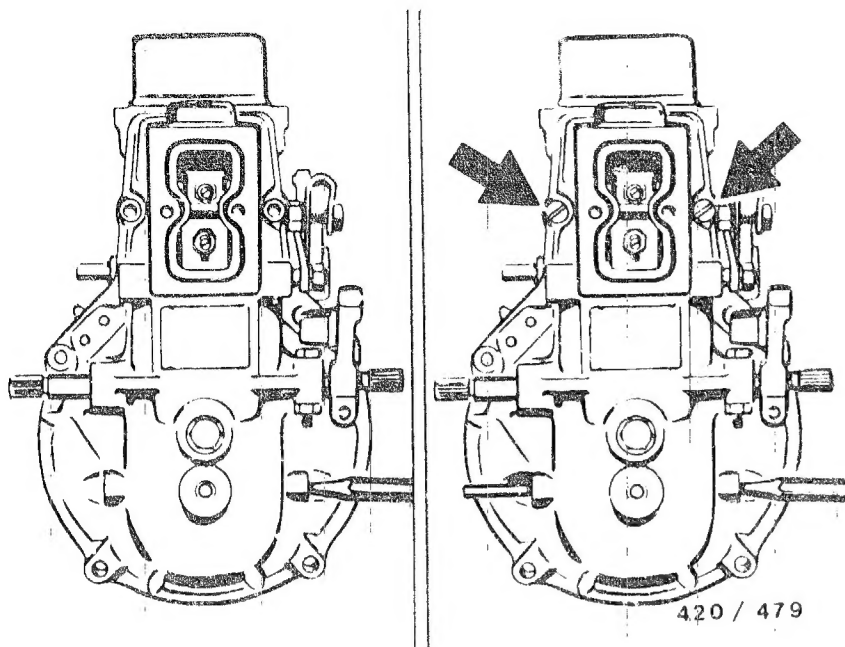
2 = Fulcrum lever

Position swivelling lever onto the universal joint shafts (illustration a, arrows).

Mount governor cover, positioning the control lever vertical, and insert the longer part of the guide block, standing upright pointing upwards, into the fulcrum lever.

Note:

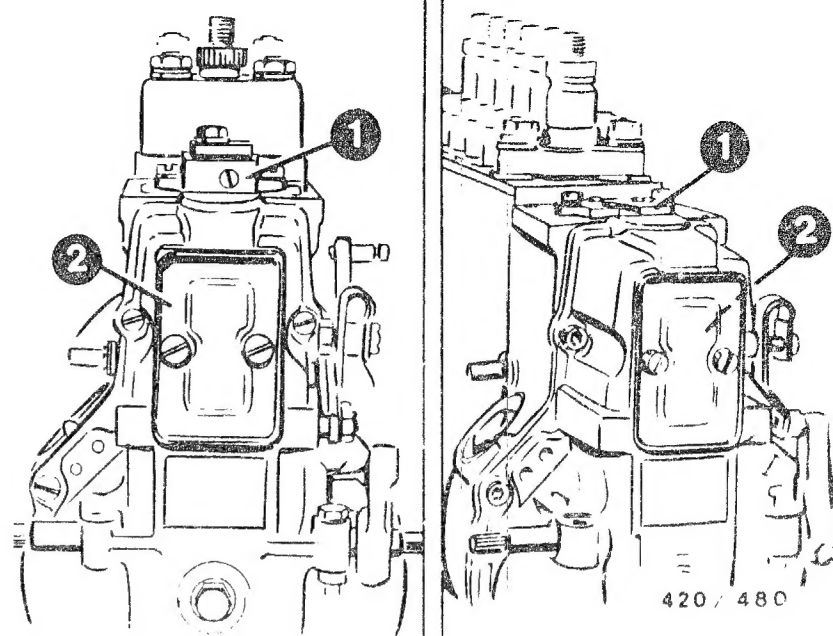
Use a new seal between governor cover and governor housing.



Locate both swivelling levers on to the housing bores with the aid of a drift punch (5 mm diameter) (illustration a).

Insert straight pin through a housing bore and in this way lock the swivelling levers. In the process, the drift punch is pushed out (illustration b). Afterwards, slightly tighten governor cover with fastening screws (illustration b, arrows)

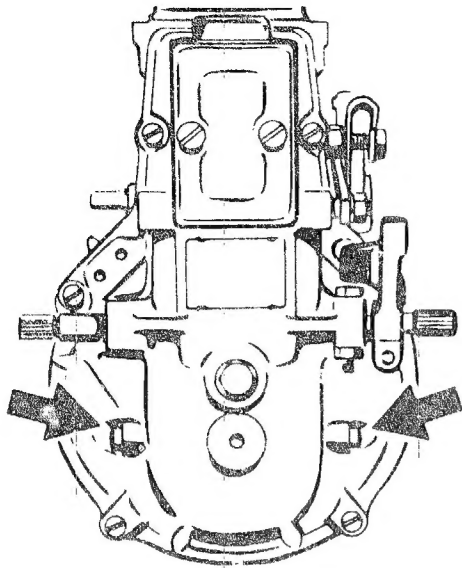
Tighten fastening screws.



1 = Full-load stop 2 = Closing cover

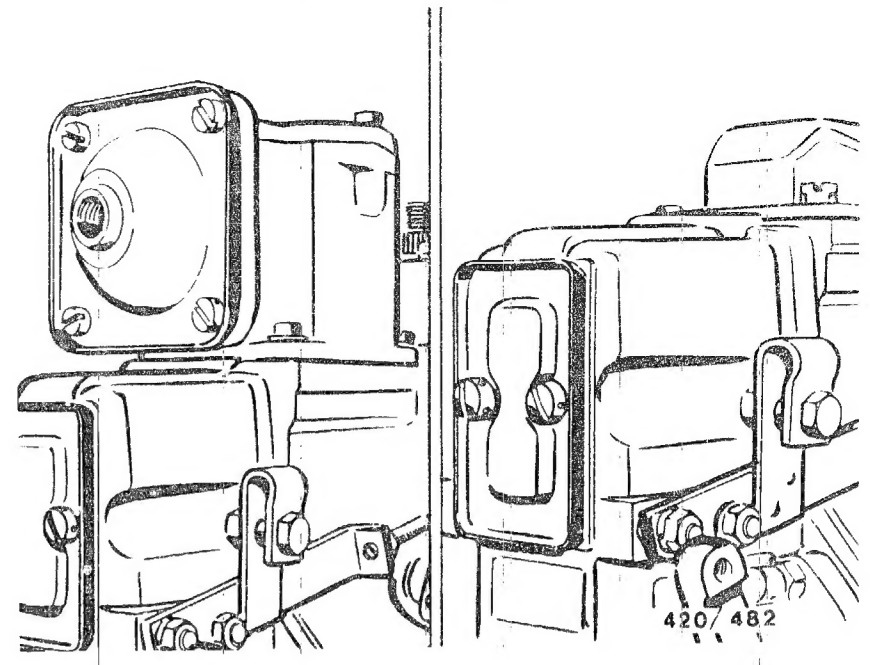
Mount closing cover (1) and full-load stop (2)

P pump, 7100 Series, illustration b.



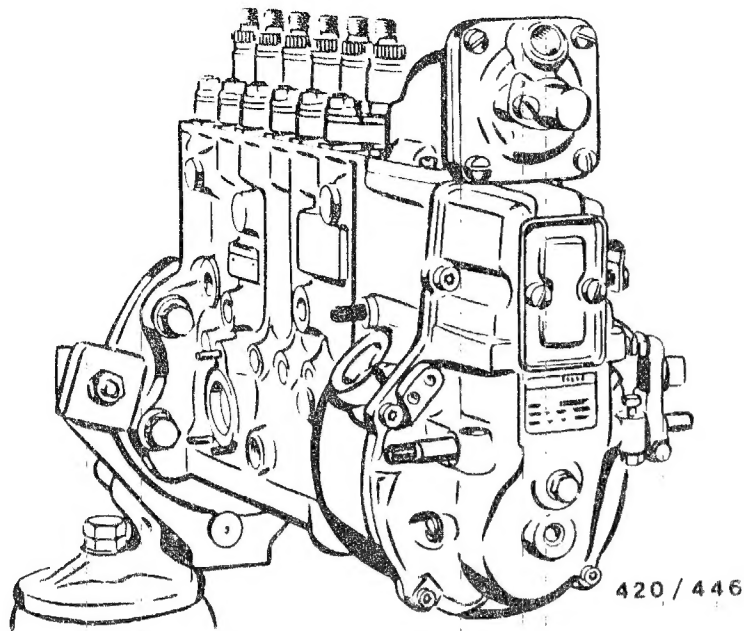
420 / 481

Mount oval-head screws with new flat flange gaskets.



Mount manifold-pressure compensator. When doing this, use a new flat flange gasket (illustration a).

Mount closing cover. When doing this use a new flat flange gasket (illustration b).



P pumps of the 7100 Series

Mount manifold—press. compen. with new flat flange gasket.

Check camshaft compartment, spring compartment and governor compartment for leaks.

Complete assembly of injection pump. Direct the compressed air required for the leakage test at a suitable position (e.g. oil check bore) to the camshaft compartment of the pump.

Immerse injection pump vertically into the test bath.

Test duration and test pressure:

-7 minutes at 1.5 bar, then

-1 minute at 0.5 bar.

Afterwards, determine by means of a visual examination whether sealing surfaces, connections, sealing rings, and end covers on the housing and cover are leak-tight.

Air bubbles are not permitted.

In order to prevent any irritation to the skin, grease up your hands beforehand with a protective hand cream and wash them with soap and water after completion of the test.